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ABSTRACT

This manual is designed to accompany Pennsylvania's Educational Quality Assessment (EQA) elementary school reports to assist in their interpretation and understanding. The normative sample is described as stratified on two dimensions: district enrollment and wealth. Administration procedures are summarized. The cognitive and non-cognitive areas assessed (Self-Esteem, Understanding Others, Reading Comprehension, Writing Skills, Mathematics, Interest in School and Learning, Societal Responsibility, Knowledge of Law/Government, Knowledge of Health/Safety, Creative Activities, Career Awareness, Appreciating Human Accomplishments, Knowledge of Human Accomplishments, and Information Usage) reflect the 12 educational goals adopted by the State Board of Education in 1979. Table 1 summarizes and describes the instruments used in these areas, while Tables 2 and 3, using Grade 5 test results from 210 schools in the 1983 normative sample, show correlation coefficients among school scores and school percentile ranks respectively. Discussions of predicted score range, the 35 condition variables taken into account, criterion-referenced scoring, score distributions, and item response data are also accompanied by relevant tables and data. A sample school report is included. The Appendices contain: an EQA teacher questionnaire; the Grade 5 regression analysis (1983); a normal curve diagram; comparisons of EQA results across the years; and Pennsylvania's original 10 goals of quality education. (BS)

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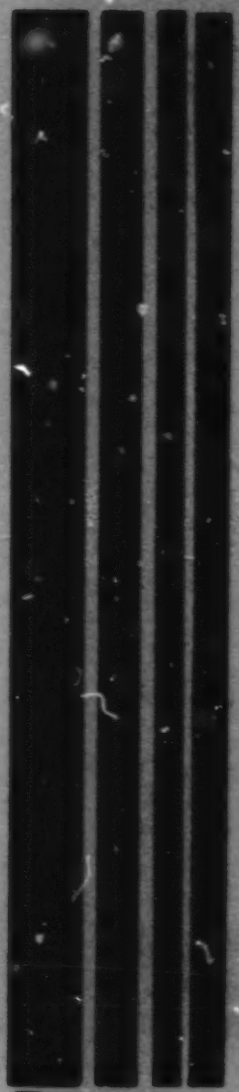
EDUCATIONAL QUALITY ASSESSMENT

EQA Manual for Interpreting ELEMENTARY School Reports



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EDUCATIONAL QUALITY ASSESSMENT

EQA Manual for Interpreting ELEMENTARY School Reports

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PREFACE

This manual is designed to accompany EQA school reports. There is an interpretation manual for each of the three levels of schools assessed: elementary, intermediate and secondary. The manuals are aids to school administrators and other staff members to understanding the reports of their schools.

With this publication and a school report in hand, the reader should have all the necessary tools to understand and interpret a school report. A sample, but real, school report with marginal notations is replicated on the color pages of this manual to familiarize the reader with the report format.

A publication complementing the information contained in this manual is *Getting Inside the EQA Inventory*, which delves more deeply into the rationale, development and characteristics (reliability, validity, other analyses) of the instruments.

BACKGROUND

Educational Quality Assessment (EQA) operates under a 1963 legislative mandate (Act 299) that required the State Board of Education to:

> . . . develop or cause to be developed an evaluation procedure designed to measure objectively the adequacy and efficiency of the educational programs offered by the public schools of the Commonwealth . . . . The evaluation procedure shall be so constructed and developed as to provide each school district with relevant comparative data to enable directors and administrators to more readily appraise the educational performance and to effectuate without delay the strengthening of the district's educational program.

EQA was administered in 300 of the Commonwealth's 505 school districts from 1970 to 1973 on a voluntary basis. In November 1973, the State Board of Education established a timetable to assess all schools in the Commonwealth during the school years 1973-74, 1974-75 and 1975-76. With the completion of this mandated cycle, EQA was offered on a voluntary basis in 1976-77 when 110 districts participated and in 1977-78 when 113 districts participated.

Districts must be involved in EQA at least once in the five school years between 1978-79 and 1982-83. Therefore, the average number of districts mandated to participate each year would be 100. The summary below demonstrates that many districts are participating on a voluntary basis.

School Year	No. of Districts
1978-79	125
1979-80	166
1980-81	228
1981-82	216
1982-83	239

NORMATIVE SAMPLE

It is generally assumed that when a large sample of schools from across the state is assessed, the sample should be representative of the state as a whole. However, since the Educational Quality Assessment program at present accepts volunteer districts, it is important to demonstrate that the sample in a given year is proportionally representative of the state. In order to determine this, each district in the state was classified into one of nine cells. The cell limits were determined by splitting the districts on wealth (market value/personal income aid ratio) by thirds and size (district average daily membership [ADM]) by thirds.

Market Value/Personal Income Aid Ratio

District ADM	*Low* ≤ .4985	*Medium* .4986 - .6286	*High* ≥ .6287	
Small ≤ 1936.0	35/11	45/15	86/29	166/55
Medium 1936.1 - 3197.0	50/17	64/21	52/17	166/55
Large ≥ 3197.1	81/27	57/19	28/9	166/55
	166/55	166/55	166/55	498/165*

The number to the left of the slash in each cell represents the total number of districts in the state comprising the cell. The number to the right of the slash represents a 33% sample of the districts in the cell.

To insure a satisfactory proportion of the total number of districts in each cell, 165 districts were chosen from the 239 participants to form a 33% state sample. Districts were selected so that each geographic region (based on intermediate unit areas) was represented. The 33% state sample contains at least two districts from each intermediate unit in the Commonwealth (except IU 2 and and IU 26, which are cities of Pittsburgh and Philadelphia). Most intermediate units have approximately 33% of the total number of its districts included in the sample. Approximately 33% of the schools in Pittsburgh and in Philadelphia are added to the sample to form the normative group:

Grade	*No. of Normative Schools*	*No. of Students*
5	**610**	36,000+
8	**237**	40,000+
11	**190**	36,000+

*One-third of the schools in Pittsburgh and in Philadelphia are added after the 33% sample is selected.

ADMINISTRATION PROCEDURES

The superintendent of each participating district, when returning the initial application, appointed a representative to coordinate EQA activities at each of the grade levels. These representatives were scheduled to attend a regional workshop, where their duties and responsibilities were explained. At these meetings the *School Representative's Handbook* and *Examiner's Handbook*, designed to standardize administration procedures, were discussed. In addition, the representatives were briefed on the background of EQA and, by viewing a sample school report, learned what they could expect in return for their efforts.

The teacher questionnaires were administered (see Appendix A) to gain additional information about the school from the teachers' perspective, as well as information about the teachers themselves. Teachers respond anonymously, placing only the district name and school name on the questionnaire. *All* classroom teachers (persons spending more than 50 percent of their time in classroom instruction) are asked to complete questionnaires; no sampling procedures are used.

The parents of the students to be tested were informed of the questionnaire administration and purposes of the assessment program. Parents who did not wish to have their children participate could have them excluded by notifying the school principal in writing. Questionnaires were available at the school for review by interested parties.

Although there was an option to use large group testing, most districts used the individual classrooms as test sites for grade 5 administration. Therefore, teachers were most often used as monitors.

The administration of the questionnaires took about 2-1/2 hours of student time. Most districts gave the questionnaire using two sittings on two different days. The monitors were given printed directions to standardize the administration.

These directions and the procedures suggested by the EQA staff and EQA publications should help insure optimum testing conditions and accuracy of results. As a school is forced by uncontrollable circumstances to deviate from such optimum conditions, the likelihood of inaccuracies in the results is increased.

To assure confidentiality and anonymity of responses, students did not place their names on the machine-scorable answer sheets. However, in most districts all the students used the same answer sheet for all sessions. Students were informed that they could skip any item which they felt was too personal.

The sections of the questionnaire have no time limits for completion. The *Examiner's Handbook* lists time ranges that might be expected for each section but with the direction: *Students should be given ample time to finish each section.*

Parental occupational and educational information for grade 5 students was obtained from school records or parental survey forms. Teachers or clerical staff coded the information on answer sheets in a random sequence.

The envelopes containing the completed teacher questionnaires and the completed student answer sheets were mailed for scanning, scoring, compilation and analysis.

NATURE OF THE QUESTIONNAIRES

The Pennsylvania Student Questionnaires measure, by aggregating student scores, a school's status on areas of the Goals of Quality Education. *(See Appendix E)* In March 1979, the State Board of Education adopted a revised set of twelve goals. The Educational Quality Assessment staff, observing the direction being taken in the goal revision process, incorporated many aspects of the twelve goals into the present package. The main objective in the present assessment is to reflect what educators in the Commonwealth feel would be useful in improving their school programs.

AREAS ASSESSED:	*Cognitive Areas*	*Non-Cognitive Areas*
	Communication Skills: Reading Comprehension	Self-Esteem
	Communication Skills: Writing Skills	Understanding Others
	Mathematics	Interest in School and Learning
	Knowledge of Law/Government (Citizenship)	Societal Responsibility (Citizenship)
	Health Knowledge – Grade 5	Health and Safety Practices – Grades 8 & 11
	Career Awareness (Work)	Creative Activities*
	Knowledge of Human Accomplishments*	Appreciating Human Accomplishments*
	Information Usage (Analytical Thinking)	

*Contain items on both Arts and Humanities and Science and Technology.

Table I contains a summary of the instruments with names for the areas covered, a description of the scales, the number of items and sample items. A more detailed discussion of the development and the rationale for each measuring instrument can be found in *Getting Inside the EQA Inventory.*

Matrix Sampling Procedure *

The EQA process uses *matrix sampling*–a method whereby each student takes only a portion of the total number of items for every measured area. This sampling process permits broadening the scope of the instruments while simultaneously decreasing the time needed for administration. In census testing, each student was given all items, and a school mean score was the average of the individual student scores on these items. The mathematics test, for example, contains 60 items which are divided into three test forms–20 mathematics items per form. Although the process for determining a school mean mathematics score is somewhat more complicated, the general idea is to calculate a mean score for each form and then sum the three mean scores. Thus, the maximum possible school mean score would be 20 + 20 + 20, or 60. The minimum is 0. Although the possible mean score range is 0 to 60, means range from about 28 to 48.

For attitudinal measures, responses are not considered right or wrong, but are viewed as falling along a continuum with a preferred direction given. For Self-Esteem, responding STRONGLY AGREE is considered to be the most favorable response to a positive item and is given a weighted score of 3. Weights of 2, 1 and 0 are assigned to the other three responses. The maximum score per form would be 33 (11 items x the *weight* of 3 for the most preferred response for each item). The minimum would be 0. The maximum school score for Self-Esteem would be 33 + 33 + 33 or 99, i.e., the maximum score per form summed. Therefore, the theoretical score range is 0 to 99.

Correlations Between Performance Areas

The interdependence among goal areas is illustrated by the correlation matrix in Table 2. For example, the correlation of 0.35 between Self-Esteem and Interest in School and Learning indicates that in schools where self-esteem scores are higher, the school interest scores likewise tend to be higher. This is not to say that a higher self-esteem will cause a student to like school more, or vice versa. Cause-effect conclusions from correlational information are untenable. Also apparent are the high correlations among the cognitive measures.

*For more information on matrix sampling see pages 41-45 of *Getting Inside the EQA Inventory*.

TABLE 1

SUMMARY OF INSTRUMENTS

AREA	SCALE DESCRIPTION	NO. OF ITEMS	SAMPLE ITEMS	RESPONSE CHOICES
SELF-ESTEEM	Students are asked to relate their feelings of success and feelings of acceptance – primarily in the school setting.	33 (11)	I get along well with kids in my class. I feel that my teachers understand me. I am able to do many things well in school. I feel unhappy about my school work.	SA = Strongly Agree MA = Mostly Agree MD = Mostly Disagree SD = Strongly Disagree
UNDERSTANDING OTHERS	Students are asked to respond to approaches and interactions with persons of differing skin color, religious beliefs, physical characteristics, socio-economic status or cultural tradition.	45 (15)	**Would you mind sitting in class beside a student who:** Has few friends because of the way he or she looks? Is very much like you, but whose skin color is different from yours? Is much poorer than you? Belongs to a religion which you do not belong to? Is from another country and doesn't speak English very well?	A = Yes B = I think so C = I don't know D = I don't think so E = No
COMMUNICATION SKILLS: READING COMPREHENSION	*Literal comprehension* - recognition of details or the main ideas explicitly stated. *Word meaning* - recognition of the appropriate meaning of a word in a given context. *Inferential comprehension* - response to items which require taking the meaning of a passage beyond explicit ideas.	48 (16)	[A wide variety of reading materials was used to cover the many different styles, purposes and types of content in written matter the reader encounters in school and leisure]	[Four, multiple-choice options]
COMMUNICATION SKILLS: WRITING SKILLS	A. *Mechanics and usage* – recognizing the application of conventions. B. *Sentence sense* – recognizing clear, concise and effective sentences. C. *Paragraph sense* – recognizing coherence, unity and transition in the organization and development of paragraphs and larger units. D. *Style, tone and flavor* – recognizing effective and appropriate language for a given purpose, audience or situation.	45 (15)	Choose the answer that is a complete sentence. Choose the best way of combining the sentences. John threw the ball. Mary was hit by the ball.	A Happily skipping down our street. B Singing happily, I skipped down our street. C Singing and skipping happily down our street. D Skipping down our street and singing happily. A Mary threw the ball and hit John. B John was hit by the ball. C John hit Mary with the ball. D John threw the ball to Mary and was hit.

TABLE 1 (Continued)

AREA	SCALE DESCRIPTION	NO. OF ITEMS	SAMPLE ITEMS	RESPONSE CHOICES
MATHEMATICS	Items measure mathematical concepts, computation and/or problem-solving.	60 (20)	[Items include questions about: number systems, numeration and notation, geometry, measurements, number patterns and relationships, and other topics]	[Four, multiple-choice options]
INTEREST IN SCHOOL AND LEARNING	Students are to display their feelings on the climate and learning atmosphere in the school, the educational experiences the school provides, the quality of the personal interactions it fosters between student and educator, and the students' attitudes toward learning.	27 (9)	HOW DO YOU FEEL: When you think about your schoolwork? When you learn about science in school? When you are given a book for a birthday present?	VH = Very Happy LH = A Little Happy LU = A Little Unhappy VU = Very Unhappy
SOCIETAL RESPONSIBILITY (Citizenship)	Students are asked if they will assume responsibility for their actions and the actions of groups to which they belong, work cooperatively, demonstrate integrity when dealing with others, and take the initiative and assume leadership, as well as support group efforts as followers.	27 (9)	If a store clerk gave me too much change, I would return the extra money. I would help with a class project even if I did not like it. If I saw some kids starting fires in an alley, I would report it.	Y = Yes M = Maybe N = No
KNOWLEDGE OF LAW/GOVERNMENT (Citizenship)	Three major areas of knowledge were identified as essential to good citizenship. They are broadly described as knowledge of government, knowledge of law and knowledge of interdependence of people.	21 (7)	The main job of Congress is to For a person to get a law changed, it is illegal to A major purpose of the United Nations is to	A make sure laws are obeyed. B make laws. C decide whether someone has broken the law. D make everybody happy with the laws. A join political action groups. B lobby. C pay someone to have it changed. D make campaign contributions. A help nations settle arguments without fighting. B organize student exchange programs between nations. C replace nations with a world government. D spread democratic government to all nations.

TABLE 1 (Continued)

AREA	SCALE DESCRIPTION	NO. OF ITEMS	SAMPLE ITEMS	RESPONSE CHOICES
KNOWLEDGE OF HEALTH/SAFETY	Students are to demonstrate knowledge of how to take care of themselves and how to keep physically fit, what the requirements are for physical and mental health and what practices, harmful to health, should be avoided.	45 (15)	Which of the following is a safety rule to follow when riding a bicycle?	A Ride on the right side of the road. B Ride on the left side of the road. C Ride on the sidewalk. D Wear dark-colored clothing when you ride.
			A balanced diet includes foods that are	A digested quickly and easily. B high in proteins and vitamins. C from each of the four basic food groups. D low in calories and fats.
			If you burn yourself, you should first	A put butter on the burn. B run cold water on the burn. C cover the burn tightly with a clean bandage. D put nothing on the burn.
CREATIVE ACTIVITIES (Arts and Humanities and Science and Technology items)	Students are asked to indicate frequency of participation in five areas: visual arts, performing arts, writing, science, and social and practical studies.	36 (12)	During the last three years, how many times have you done the following? Designed and carried out a science experiment with plants or animals? Made a drawing or a sketch? Made up a plan for solving a problem of your community or school?	A = Have not done the activity B = Have done the activity once. C = Have done the activity 2 or 3 times. D = Have done the activity about 5 times. E = Have done the activity about 8 times (or more).
CAREER AWARENESS (Work)	The students are queried on their awareness of duties, training, abilities and educational requirements of various occupations, an understanding of the labor market conditions, and skills in gathering such data, such as knowledge of occupational clusters and publications.	42 (14)	For which of these workers is the ability to spell correctly most important?	A mail carrier B waitress C secretary D bookkeeper
			Which job does NOT require a college degree?	A computer operator B veterinarian C lawyer D teacher
			Which worker would spend a lot of time working with a sewing machine?	A upholsterer B clothing salesperson C laundry worker D model

TABLE 1 (Continued)

AREA	SCALE DESCRIPTION	NO. OF ITEMS	SAMPLE ITEMS	RESPONSE CHOICES
APPRECIATING HUMAN ACCOMPLISHMENTS (Arts and Humanities and Science and Technology items)	Student openness is displayed by a willingness to engage in listening, watching or reading activities relating to significant accomplishments. In addition, the student reaching the higher levels of openness will display willingness to learn about accomplishments and what is entailed in producing them.	57 (19)	WOULD YOU WANT TO: Read a science magazine? Watch an artist make an art object or painting? Go to a play that has a lot of songs in it?	A = Would want to B = Might want to C = Don't know D = Don't think I'd want to E = Would not want to
KNOWLEDGE OF HUMAN ACCOMPLISHMENTS (Arts and Humanities and Science and Technology items)	Students are asked to demonstrate recognition of persons, theories or ideas, works, inventions or phenomena. Students are expected to be able to recognize the names of prominent persons and concepts to which they should have been exposed within the school setting.	45 (15)	What area is most closely related to the following? John Philip Sousa Electronics Legislature Martin Luther King Rembrandt Abraham Lincoln Edgar Allan Poe Nutcracker Suite	M = Music or Dance S = Science or Medicine A = Art W = Writing, Books or Plays G = Government or Politics ? = Don't Know
INFORMATION USAGE (Analytical thinking)	Students are asked to show that they are able to examine problems in a logical way, to identify them properly, to seek whatever information is needed to establish facts, to be aware of the consequences of decisions, and to have the ability to choose courses of action which are most congruent with their own values and desires.	33 (11)	Debbie and her parents are planning to drive from Pennsylvania to a national park in Florida. Which of the following would be **most** helpful in deciding on the best way to get there? Jim has a newspaper route. He delivers his papers each day after school. Yesterday his bike broke. Because of this, he is afraid he will be unable to deliver all of his papers today. His father is away on a trip and won't be home until tomorrow. What are you **most** sure about from the story?	A Go to a national park in Pennsylvania and ask for their help. B Send for a map of the national park. C Get road maps of the eastern states of the U.S. D Look at the world atlas. A Jim's father often goes away on trips. B Jim does **not** think he can get his papers delivered by walking. C Jim uses his bike to deliver papers because he does **not** like walking. D Jim's bike is old.

Note: The number appearing in parenthesis indicates the number of items per form.

TABLE 2

CORRELATION COEFFICIENTS AMONG SCHOOL SCORES - GRADE 5, N=610

1983 Normative Group

		SE	UO	RC	W	M	IS	SR	KL	HK	C	CA	AH	KH
Self-Esteem	SE													
Understanding Others	UO	.50												
Communication Skills: Reading Comp.	RC	.44	.72											
Communication Skills: Writing Skills	W	.50	.70	.91										
Mathematics	M	.48	.59	.80	.82									
Interest in School and Learning	IS	.35	.11	-.10	-.07	-.04								
Societal Responsibility	SR	.43	.54	.41	.39	.37	.33							
Knowledge of Law/Government	KL	.42	.64	.83	.80	.73	-.12	.37						
Health Knowledge	HK	.46	.67	.87	.86	.76	-.13	.45	.81					
Creative Activities	C	.15	.12	.09	.16	.20	.13	-.06	.08	.04				
Career Awareness	CA	.47	.72	.88	.88	.79	-.11	.45	.83	.90	.10			
Appreciating Human Accomplishments	AH	.18	.19	-.03	-.03	.01	.53	.41	-.01	-.02	.22	.02		
Knowledge of Human Accomplishments	KH	.48	.63	.79	.81	.76	-.07	.35	.78	.78	.22	.83	.06	
Information Usage	IU	.46	.71	.92	.89	.78	-.08	.43	.81	.86	.10	.89	.00	.79

Note: All correlation coefficients have been rounded to two decimal places.

$r \geq 0.08$ is significant at the .05 level.

$r \geq 0.11$ is significant at the .01 level.

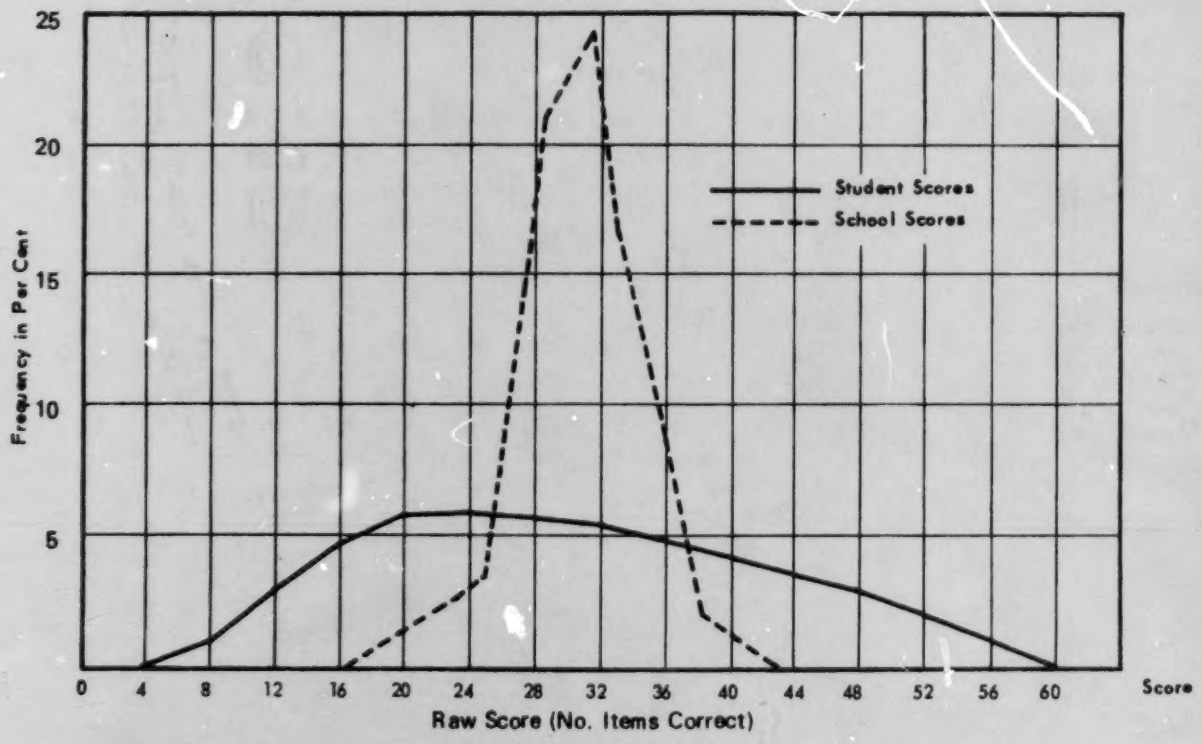
PERCENTILE RANK

The school's percentile rank in the state on each area is determined by comparing the school score to the scores of a group of *normative* schools. Percentile scores range from 1 to 99. A percentile score of 75, for example, means that 75 per cent of the schools in the state (or, more precisely, the statewide sample) scored lower on the measurement than the school at the 75th percentile. It does not mean that the students of the school answered 75 per cent of the questions correctly or favorably.

Table 3 graphically represents the normative method of scoring by showing, at five-percentile intervals, how the raw score averages for a school translate to percentiles. For example, Upper Penn Elementary School's score of 64.09 on Self-Esteem places it at the 70th percentile, which means that 70 per cent of the schools statewide had lower school scores on this area.

The reader may note the small score difference between a 60th percentile score and 65th percentile score. This occurs because of the limited range of school means. In a given school student scores on, say, Mathematics may range from 8-56, whereas the school mean, or average, score might be 30.31. This is true in each school, as illustrated by the frequency distribution below.

SAMPLE



Comparative Distributions of Student Scores and School Scores on Mathematics

TABLE 3

1983 PENNSYLVANIA SCHOOL NORMS - GRADE 5 SCHOOLS N=610

PERCENTILE DISTRIBUTION	PERCENTILE RANK	SELF-ESTEEM	UNDERSTANDING OTHERS	COMMUNICATION SKILLS: READING COMPREHENSION	COMMUNICATION SKILLS: WRITING	MATHEMATICS	INTEREST IN SCHOOL AND LEARNING	SOCIETAL RESPONSIBILITY	KNOWLEDGE OF LAW/GOVERNMENT	HEALTH KNOWLEDGE	CREATIVE ACTIVITIES	CAREER AWARENESS	APPRECIATING HUMAN ACCOMPLISHMENTS	KNOWLEDGE OF HUMAN ACCOMPLISHMENTS	INFORMATION USAGE	PERCENTILE RANK
	95	68.22	135.33	34.30	35.00	44.04	60.93	46.86	13.96	34.22	62.25	28.80	164.34	27.30	23.30	95
	90	66.88	131.80	33.33	33.84	43.06	59.54	45.82	13.39	33.47	59.55	28.06	160.54	26.00	22.44	90
	85	66.00	129.56	32.39	33.27	41.84	58.44	45.35	13.06	33.00	58.33	27.54	158.10	25.04	21.93	85
	80	65.43	128.13	31.65	32.89	41.02	57.71	44.93	12.75	32.58	57.24	27.17	155.86	24.48	21.55	80
	75	64.64	126.70	30.89	32.38	40.25	57.21	44.53	12.44	32.30	56.17	26.90	154.00	23.88	21.13	75
	70	64.30	125.26	30.49	31.88	39.78	56.79	44.25	12.22	31.96	55.48	26.57	152.12	23.25	20.87	70
	65	63.83	123.52	30.10	31.45	39.42	56.29	43.93	12.00	31.62	54.79	26.35	151.23	22.85	20.45	65
	60	63.59	122.63	29.69	30.99	38.81	55.96	43.67	11.76	31.29	54.12	26.00	150.00	22.43	20.20	60
	55	63.09	121.52	29.12	30.63	38.35	55.59	43.33	11.57	31.02	53.06	25.71	148.89	22.05	19.83	55
	50	62.59	120.78	28.74	30.15	37.85	55.07	43.01	11.34	30.68	52.14	25.43	147.82	21.67	19.52	50
	45	62.18	119.93	28.29	29.72	37.41	54.68	42.75	11.08	30.36	51.57	25.13	146.36	21.36	19.29	45
	40	61.82	118.83	27.65	29.26	36.94	54.28	42.42	10.89	30.12	50.88	24.79	144.74	20.89	18.85	40
	35	61.32	117.81	27.00	28.87	36.20	53.96	42.00	10.62	29.71	50.28	24.53	143.69	20.42	18.27	35
	30	60.86	115.82	26.29	28.50	35.57	53.55	41.62	10.40	29.32	49.56	24.12	142.70	20.13	17.92	30
	25	60.20	114.21	25.53	28.02	34.94	53.22	41.10	10.11	28.67	48.71	23.63	141.46	19.46	17.52	25
	20	59.44	112.57	24.59	27.45	34.12	52.41	40.72	9.88	28.19	47.59	22.94	139.95	18.78	16.95	20
	15	58.94	111.08	23.47	25.56	32.94	51.90	40.24	9.19	27.35	46.70	22.33	138.00	18.12	16.25	15
	10	58.05	107.92	21.30	24.79	31.94	51.03	39.33	8.44	25.76	45.68	20.85	135.41	16.88	15.00	10
	5	56.70	101.74	17.72	22.16	29.43	49.79	37.81	7.50	21.59	43.44	18.68	131.29	14.56	12.87	5
STATE MEAN		62.57	120.26	27.88	29.77	37.49	55.17	42.76	11.17	30.00	52.51	24.89	147.52	21.57	19.11	
STANDARD DEVIATION		3.48	10.09	4.75	3.70	4.45	3.33	2.70	1.89	3.52	5.83	3.09	9.95	3.72	3.01	

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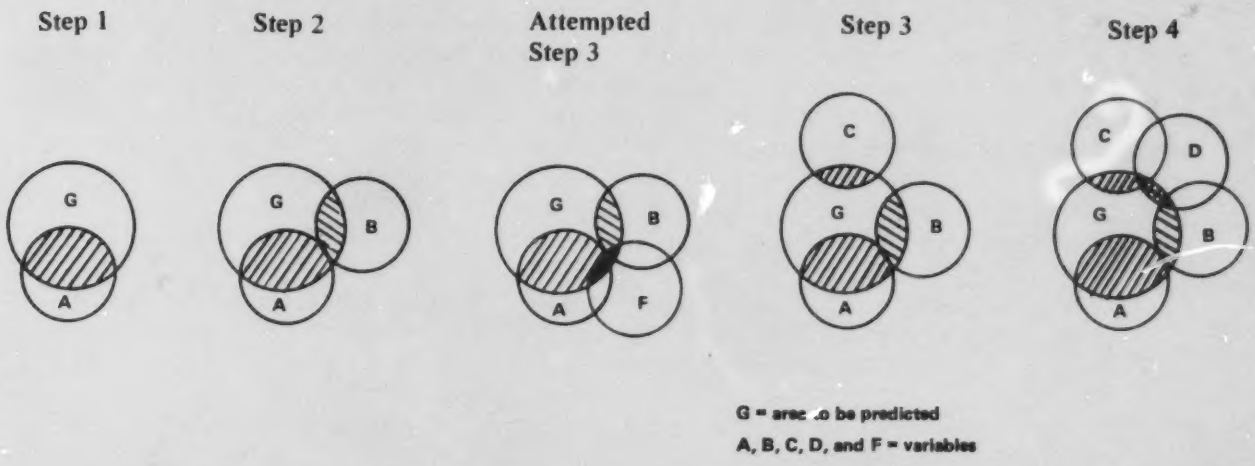
PREDICTED SCORE RANGE

Percentiles compare building performance with all schools in the statewide normative sample but do not take into account various important conditions which affect achievement. Socioeconomic level of the community, experience and educational level of the teaching staff, financial resources and type of community are a few of the variables affecting student performance. The use of predicted score ranges takes a number of these condition variables into account simultaneously.

How Prediction Equations are Developed

Prediction equations are developed from a sophisticated statistical method called stepwise regression. The process begins by entering into the equation the condition variable having the highest correlation with the area being predicted. Each successive variable enters the equation based on the increase in the amount of variance that is accounted for by adding that particular variable. Sometimes a particular condition variable having a relatively high correlation with an area never enters the equation for that area. This is usually due to the fact that another variable highly related to the one in question has entered previously and accounts for the variance that would have been contributed by the variable that did not enter. Likewise, a condition variable with a relatively low correlation with an area may enter an equation when its correlation with other condition variables is also low.

The entry of variables into the equation might become clearer through the diagrams below.



In Step 1, the overlap (proportion of shared variance) is shown by the lined area. In Step 2, circles A and B both overlap with G but do not overlap with one another, depicting their independence.

Variable F, which is the next mostly highly related to G, will not enter the equation because all its variance with G has been accounted for by A and B. *(Attempted Step 3)*

In Step 3, Variable C enters the equation because A, B and C are completely independent; that is, they share no variance with each other. Then each variable would contribute all of the variance shared with G to the prediction of G.

In Step 4, Variable D is wedged between B and C; the black areas show the variance which D would contribute to G but which is already accounted for by B and C. The shaded area represents the variance in G that is accounted for by D. Therefore, D enters the equation at this point.

The development of a regression equation includes a measure of the error associated with prediction, termed the standard error of estimate. It decreases as the ability to predict increases; that is, as the correlation between the performance area and the set of variables included in the regression equation approaches 1.0, the standard error of estimate diminishes.

How Predicted Scores and Prediction Bands are Computed

For each school in each performance area a predicted score is obtained by multiplying the value for that school for each condition variable in the predictor set by a regression weight developed during the regression process. Summing these products and adding a constant (an adjustment for the mean) produces the predicted score. The standard error of estimate is added to and subtracted from the predicted score to obtain the predicted score range.

Cautions

EQA regression equations are sometimes requested by school administrators in order to gain a better understanding of why their schools were predicted to fall where they did. *(See Appendix B)* At the same time it is tempting to view the variables entering the equations as those conditions which make the greatest contribution to performance in an area. Frequently, the thought arises that if scores on certain of these condition variables could be raised, then student performance might also be increased. Regression equations *cannot* be used for that purpose. The regression equation should not be used as a means of identifying the "most important variable" with respect to a particular performance area. In order to get a picture of which variables are most highly related to particular areas, it is essential to look carefully at Table 7, which lists the correlations between all condition variables and the areas.

1. The entry of variables into stepwise regression does not signify that these are the only important variables. That is, variables not entering the equation may also be very important correlates of the performance area.

2. The sequence in which variables enter into stepwise regression does not necessarily reflect their relative importance.

3. The regression weights do not represent their significance or their relative importance.

4. The variables entering into stepwise regression do not permit causal inferences nor do they lead to explanations of phenomena.

5. The process of stepwise regression is a mathematical one which does not yield a list of similar schools.

6. Stepwise regression is appropriate when used for purely predictive purposes.

CONDITION VARIABLES

Rationale

The previous section, *Predicted Score Range*, stated that to improve the possibly objectionable or unfair comparisons that percentile ranks alone invite, the Pennsylvania assessment model also includes an input-output component.

Schools around the state have vastly differing resources at their disposal. The differences are not only in the students served but also in teaching staff and financial and parental support.

Measurement

Table 4 describes the 35 variables which were collected to identify the differences in resources among Pennsylvania's schools. The variables came primarily from students (as part of their questionnaires) and teachers (Appendix A–Teacher Questionnaire).

It is extremely important to note how the variable was measured and quantified. High scores for a school on these variables are not necessarily good. For example, a high grade enrollment simply means the school has a large number of students per grade. It does not, in any way, indicate that schools having greater numbers of students per grade are better.

Percentile Rank

For each of the 35 condition variables the school receives its percentile rank compared to the 1983 normative sample. This information is provided so that one can tell not only *what* conditions or resources a school has but also its *relative* conditions. A high percentile likewise does not necessarily imply *good* conditions.

The norm chart (Table 5) gives a more graphic representation of the percentile rank scores in the school report. It illustrates also how much schools differ on a particular variable. Because these distributions use school means, the ranges of values at times can be very narrow, so that a small increase in a school mean value may translate into a large percentile rank change, e.g., STABLE (Stability of student residence).

Item Results

In the school report the condition variables are stated as a school score. In most cases, interpreting a school score is simple and straightforward. For instance, to say that the average class size is 27.9 seems understandable enough. But many variables are scaled in such a way that the mean score, which becomes the school score, disguises much of the information used in its calculation.

As a result, percentage replies by item are included in the school report for some variables obtained from the students and teachers. Although the percentages for a particular school are by themselves meaningful, an additional comparison of these percentages to the statewide figures might amplify the picture for the interpreter. Table 6 includes the statewide percentages of those variables for which item data are included on pages 4-7 of the school report.

Correlation Matrices

Table 7 shows the relationship between a given condition variable and school scores on the 14 areas. Here again the reader is warned against constructing a cause-effect relationship from a correlation.

Table 8, which shows the intercorrelation among the condition variables themselves, although open to the same warning as above, suggests one of the reasons why cause-effect relationships are so dangerous. No variable exists in isolation; many interrelationships exist. The average class size, if changed, would alter the tuition rate and the teacher educational level. It is true, at the same time, that average class size may vary according to the socio-economic level of the community (Parental occupation).

A Word About Correlation Coefficients

A correlation coefficient indicates the extent to which two variables relate. The variables might be *height* and *weight*, or *IQ* and *reading achievement*, or *student educational expectations* (EDEXPECT), and *mathematics achievement*.

The possible values of a correlation coefficient range from -1.0 through 0.0 to +1.0. The closer the value is to 1.0 (either + or -) the greater the relationship. A positive correlation indicates that as one variable increases, so does the other variable (*IQ* and *reading*) and a negative correlation indicates that as one variable increases the other decreases (*number of miles driven* and *gas left in tank)*.

The existence of a relationship does not necessitate a cause and effect condition. For example, *the number of teachers* in a state is positively correlated with the *number of potatoes consumed* in the state. Neither variable is *causing* the other, rather both are caused by a third variable, the *size of the population* of the state. On the other hand, there is a positive correlation between the *average speed of automobiles* in a state and the *number of traffic deaths*. There may be a cause and effect relationship between these two variables, and by decreasing the speed limit, lives may be saved.

With respect to EQA data, there is a positive correlation between *student perception of parental interest in school* (SPARINT) and *mathematics achievement*. This may, in part, be a causal relationship and an improvement in SPARINT might ultimately result in an improvement in *mathematics achievement*. There is also a positive relationship between the *parental education* and *student achievement* but that variable (PAREDUC) is fixed.

If there is a statistically significant correlation between two variables then the relationship exists. If the correlation is not significant or zero, there may still be a relationship for specific types of schools or with a broader range of scores. For example, at eighth grade, there is no significant correlation between *class size* and *mathematics achievement*, yet who could doubt that more learning would take place with a class of ten students than would take place with a class of 100 students. EQA data indicate a very restricted range of class sizes in the Commonwealth, and small differences in class size (23 students vs. 26 students) do not seem to reflect a change in achievement.

An additional factor which confounds the class size issue is that in suburban schools where achievement is generally high, discipline is not a problem and larger classes can be effectively managed; whereas, in some urban areas, achievement is low, discipline is a problem and smaller classes are necessary for effective management. Thus, large classes may have high achievement and small classes may have low achievement but the class size is not the causal variable. Rather other things such as discipline, motivation and attendance might be the determining factors. In this example, these schools would reflect a negative relationship or correlation. However, when combined with *all* schools (many perhaps exhibiting a positive relationship between class size and achievement) the end result may be a nonsignificant relationship.

TABLE 4

CONDITION VARIABLES

No.	VARIABLE AND COMPUTER CODE	MEASURE	WEIGHTING	INDEX DESCRIPTION
1	GRENROLL (Grade enrollment)	The school administrator reported enrollment of the grade under consideration.	Actual number of students in the participating grade.	A higher value indicates a larger grade enrollment.
2	PCTTILI (Percentage of (Title I) low income students)	The percent of students by school reported to the Department that are from low income families. (DEBE-1169)	Expressed to nearest tenth of a per cent.	A higher value indicates a higher per cent of students from low income families.
3	TUITION (Tuition rate)	The tuition rate established for the school districts was obtained from Department records.	Expressed to nearest whole dollar for 1981-82.	A higher value indicates that the district claims to expend relatively more funds per student.
4	TLOCALE (Teacher locale)	The teachers reported where they graduated from high school.	0= 100 miles or more from boundaries of the school district 1 = More than 30 miles but less than 100 miles 2= In or within 30 miles	A higher value indicates that the school teaching staff is more often drawn from local areas.
5	TSATPAR (Teacher satisfaction with relationships with parents)	The teachers reported how satisfied they were with their relationships with parents and and parent groups	3 = Very satisfied 2 = Somewhat satisfied 1 = Somewhat dissatisfied 0 = Very dissatisfied	A higher score indicates a greater satisfaction of the teaching staff with the cooperation and contacts they have with parents and parent groups.
6	TEDUC (Teacher education)	The teachers indicated the level of formal education they have attained.	4 = Doctor's degree 3 = Master's degree plus 1 year 2 = Master's degree or equivalency 1 = Bachelor's degree 0 = No degree	A higher value indicates that the school's instructional staff reported a higher level of formal education.
7	TEXPER (Teacher experience)	The teachers reported the total years of service in teaching including the current school year.	Expressed as average years' experience.	A higher value indicates that the teachers of the school have relatively more years of teaching experience.
8	CLSIZE (Class size)	The teachers reported their average class size excluding supervisory duties such as study hall.	Expressed as average class size for all teachers.	A higher value indicates a greater average class size.
9	READTIME (Teacher estimation of reading instruction time) (Grade 5 only)	The teachers reported how many hours the average student spent in direct reading instruction in a typical week.	Expressed as average hours spent.	A higher value indicates a greater amount of time spent in direct reading instruction.
10	MATHTIME (Teacher estimation of mathematics instruction time) (Grade 5 only)	The teacher reported how many hours the average student spent in mathematics instruction in a typical week.	Expressed as average hours spent.	A higher value indicates a greater amount of time spent in mathematics instruction.

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TABLE 4 (Continued)

No.	VARIABLE	MEASURE	WEIGHTING	INDEX DESCRIPTION
11	EXTRACT (Activities external to the classroom)	The teachers indicated the degree to which each of five statements about their interactions with students constitute a problem in their school.	3 = Not a problem 2 = Moderate problem 1 = Serious problem 0 = Critical problem	A higher score indicates that the teaching staff is more satisfied with their interactions with students.
12	TRELATE (Teacher/Student/Parent relationships)	The teachers indicated the degree to which each of nine statements about the interest of the students and the support and interaction with the parents constitute a problem in their school.	Same as EXTRACT	A higher score indicates that the teaching staff feels that the students and parents support and interact with the school more.
13	DISRUPT (Factors disruptive to classroom management)	The teachers indicated the degree to which each of eight statements about factors that affect classroom management in the school constitute a problem for them.	Same as EXTRACT	A higher value indicates that the teaching staff is more satisfied in classroom management situations.
14	INFLUENC (Teacher influence upon instructional decisions)	The teachers indicated the degree to which each of nine statements about their influence on learning conditions constitutes a problem in their school.	Same as EXTRACT	A higher value indicates that the teaching staff has a greater influence on decisions which affect the instructional processes.
15	TSTAFF (Staff interpersonal relationships)	The teachers indicated the degree to which each of three statements about staff interaction and support constitute a problem in their school.	Same as EXTRACT	The higher value indicates that the teaching staff and other school staff interact better.
16	DISCPROB (Discipline problems)	The teachers indicated the degree to which each of five statements about the discipline procedures of the school constitute a problem for them.	Same as EXTRACT	The higher value indicates that the teaching staff is more satisfied with the way discipline is handled in the school.
17	PAREDUC (Parental education)	The higher level of the following two was used: (1) The students reported the the highest level of formal education attained by their fathers or male guardians. (2) The students reported the highest level of formal education attained by their mothers or female guardians.	8 = Ph.D. or professional degree 7 = Some work toward Ph.D. or professional degree 6 = Master's degree 5 = Bachelor's degree 4 = Some college, vocational, business school after high school 3 = High school graduate 2 = Some high school, but not a graduate 1 = Completed grade school 0 = None or some grade school	A higher value indicates that the school draws students from homes in which at least one of the parents has a higher average level of formal education.

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TABLE 4 (Continued)

No.	VARIABLE	MEASURE	WEIGHTING	INDEX DESCRIPTION
18	PAROCC* (Parental occupation)	The highest level of the following two was used: (1) The students reported the occupation most like their fathers' or male guardians found on a list of 148 possible occupations and 6 special categories. (2) The students reported the occupation most like mothers' or female guardians (if employed) on the list of 148 possible occupations and 6 special categories.	The occupational categories were weighted from 1 to 99 according to a combination of education needed to secure the occupation and income derived from the occupation. The higher level was used to allow for family support by either the male or female parent.	A higher value indicates that the school tends to draw a large proportion of its students from homes where the higher level parent is employed in higher-paying jobs requiring higher educational levels.
19	OCDESIRE* (Occupational desire) (Grade 11 only)	From the list of 148 occupations mentioned above, the students reported the occupations most like those they wish to follow when finished in school.	Same weighting used in PAROCC above.	A higher value indicates that the students desire to attain higher paying jobs requiring a higher educational level.
20	OCEXPECT* (Occupational expectation) (Grade 11 only)	From the list of 148 occupations the students reported the occupations most like those they really expect to follow when finished in school.	Same weighting used in PAROCC above.	A higher value indicates the students expect to attain higher paying jobs requiring a higher educational level.
21	PCTGIRLS (Percent girls)	The students indicated their sex.	Expressed in percentage.	A higher value indicates that the school has a greater proportion of girls in the grade level.
22	RESIDE (Type of community)	The students with the aid of the monitor reported the types of communities in which they were then living.	7 = In Philadelphia or Pittsburgh 6 = Inside a large city (100,000 to 500,000 people.) 5 = Inside a medium size city (10,000 to 100,000) 4 = In a suburb of Philadelphia or Pittsburgh 3 = In a suburb of a large city 2 = In a suburb of a medium size city 1 = In a small town (less than 10,000 people.) 0 = In the open country or in a farming community.	A higher value indicates that the students reside in larger areas of dense population, i.e., more removed from open space.
23	PCTWHITE (Percent white students)	The students reported their race.	Expressed in percentage.	A higher value indicates that the school has a greater proportion of white students in the grade level.
24	LIBRARY (Accessibility of library)	The students reported how often they were able to use the school library.	3 = More than three times a week. 2 = Two or three times a week. 1 = Once a week 0 = Never	A higher score indicates that the students report greater accessibility of the library.

*The occupational weightings were updated and no direct comparisons of raw scores can be made to assessments conducted prior to 1978.

TABLE 4 (Continued)

No.	VARIABLE	MEASURE	WEIGHTING	INDEX DESCRIPTION
25	STABLE (Stability of student residence)	The student reported the number of different school buildings attended within the past 3 years because family changed residence.	4 = My family has not moved within the past 3 years 3 =2 school buildings 2 = 3 school buildings 1 = 4 school buildings 0 = 5 or more school buildings	A higher value indicates that the students come from families which are more stable.
26	FAMSIZE (Family size)	The students reported the number of brothers and sisters they have.	Expressed as average number of siblings.	A higher value indicates that the students of the school come from larger families.
27	FAMORDER (Family order)	The students reported the number of older brothers and sisters they have.	0 = 2 1-2 = 1 3-9 = 0	A higher value indicates that the students of the school are more likely to be the eldest in their families.
28	SPARINT (Student perception of parental interest in school)	The students reported their opinions on three items: (1) My parents enjoy hearing about school. (2) My parents feel the school is doing a good job. (3) My parents support what the school does.	3 = Almost always 2 = Usually 1 = Sometimes 0 = Almost never	A higher value indicates that the students felt their parents have a great interest in the school, a higher opinion of the work of the school, and greater support of the school.
29	HOMEWORK (Amount of homework)	The students reported their estimates of time usually spent on homework from the time they get home from school until they go to bed.	4 = About three hours or more 3 = About two hours 2 = About one hour 1 = Less than one hour 0 = None	A higher value indicates that students of the school spent more time on homework on school nights.
30	TVWATCH (Student time spent watching television)	The students reported their estimates of time usually spent watching television from the time they get home from school until they go to bed.	4 = About five hours or more 3 = About four hours 2 = About three hours 1 = About two hours 0 = About one hour or less	A higher value indicates that students of the school watch more television on school nights.
31	PAREXP (Student perception of parental expectations) (Grades 8 and 11 only)	The students reported their perceptions on: (1) What do your parents encourage you to do? (2) How much schooling do your parents expect you to complete?	For item 1: 3 = To be one of the best students in the class 2 = To be above average student in the class 1 = To be at least an average student 0 = To do just well enough to get by. For item 2: 4 = Beyond college graduation 3 = Graduation from college 2 = Some college or other post-high school training 1 = Graduation from high school 0 = Some high school	A higher score indicates that the students feel that their parents expect them to do well in school and expect them to achieve higher educational levels.

TABLE 4 (Continued)

No.	VARIABLE	MEASURE	WEIGHTING	INDEX DESCRIPTION
32	EDEXPECT (Student educational expectations) (Grades 8 and 11 only)	The students reported how far they expect to go in school.	4 = Beyond college graduation 3 = Graduation from college 2 = Some college or other post-high school training 1 = Graduation from high school 0 = Some high school	A higher score indicates that the students of the school have higher educational expectations.
33	STEACHEX (Student perception of teacher expectations) (Grades 8 and 11 only)	The students reported their perception of their teachers' expectations of them.	3 = One of the best students in the class 2 = Above average in the class 1 = At least an average student 0 = A below average student	A higher score indicates that the students of the school feel that teachers expect more effort from them.
34	HOMEREAD (Reading material in the home)	The students reported on five items the amount of reading materials in the home.	Each item was assigned a weight for the amount of that type of reading materials in the home.	The higher value indicates the students report more reading materials in the home.
35	HOMECLIM (Home climate)	The students reported their opinions on 12 items about home conditions. (4 per form)	Very true of me Mostly true of me Mostly untrue of me Very untrue of me	A higher value indicates that the students have more favorable attitudes toward their home conditions.

TABLE 5

1983 PERCENTILE DISTRIBUTION OF VARIABLES - GRADE 5 SCHOOLS N=610

	PERCENTILE RANK	1 GRENROLL	2 PCTTILI	3 TUITION	4 TLOCALE	5 TSATPAR	6 TEDUC	7 TEXPER	8 CLSIZE	PERCENTILE RANK
PERCENTILE DISTRIBUTION	95	138	60.8	2778	1.94	2.78	2.32	18.35	28.28	95
	90	111	48.3	2272	1.86	2.68	2.17	17.17	26.38	90
	85	100	42.4	2072	1.80	2.63	2.09	16.54	26.21	85
	80	90	37.2	1991	1.73	2.58	2.00	16.05	25.69	80
	75	81	32.8	1918	1.68	2.52	1.95	15.64	25.11	75
	70	76	30.0	1838	1.65	2.50	1.89	15.33	24.67	70
	65	71	27.9	1803	1.60	2.44	1.85	14.93	24.22	65
	60	67	25.4	1803	1.57	2.40	1.81	14.43	23.88	60
	55	61	23.9	1727	1.53	2.36	1.75	14.09	23.58	55
	50	58	21.9	1675	1.50	2.33	1.71	13.76	23.33	50
	45	55	19.9	1624	1.47	2.29	1.67	13.48	23.04	45
	40	52	17.4	1584	1.43	2.25	1.63	13.24	22.67	40
	35	50	15.3	1552	1.38	2.20	1.60	12.85	22.17	35
	30	45	12.7	1514	1.33	2.14	1.57	12.53	21.83	30
	25	40	10.6	1461	1.29	2.09	1.53	12.15	21.43	25
	20	34	9.1	1419	1.23	2.00	1.50	11.80	21.07	20
	15	29	7.4	1397	1.17	1.95	1.43	11.33	20.57	15
	10	25	6.0	1334	1.11	1.85	1.36	10.71	20.03	10
	5	21	4.2	1296	0.99	1.67	1.29	9.78	19.07	5
STATE MEAN		66	24.6	1753	1.48	2.29	1.75	13.94	23.39	
STANDARD DEVIATION		39	17.3	596	0.29	0.33	0.31	2.67	2.80	

TABLE 5 (Continued)

1983 PERCENTILE DISTRIBUTION OF VARIABLES - GRADE 5 SCHOOLS N=610

	PERCENTILE RANK	9 READTIME	10 MATHTIME	11 EXTRACT	12 TRELATE	13 DISRUPT	14 INFLUENC	15 TSTAFF	16 DISCPROB	PERCENTILE RANK
PERCENTILE DISTRIBUTION	95	7.40	5.17	13.75	23.69	22.00	24.29	8.89	13.67	95
	90	7.00	4.94	13.43	23.15	21.76	23.71	8.81	13.22	90
	85	6.67	4.80	13.25	22.64	21.53	23.25	8.71	12.93	85
	80	6.43	4.67	13.00	22.15	21.25	23.00	8.63	12.67	80
	75	6.27	4.57	12.81	21.73	21.00	22.69	8.57	12.42	75
	70	6.13	4.50	12.70	21.37	20.87	22.35	8.48	12.20	70
	65	6.00	4.42	12.56	21.00	20.73	22.13	8.40	12.00	65
	60	5.86	4.36	12.38	20.67	20.60	21.86	8.29	11.83	60
	55	5.70	4.29	12.25	20.26	20.47	21.60	8.21	11.67	55
	50	5.54	4.20	12.11	19.84	20.23	21.33	8.13	11.42	50
	45	5.38	4.13	11.91	19.36	20.08	21.07	8.04	11.21	45
	40	5.25	4.07	11.72	19.00	19.89	20.74	8.00	11.09	40
	35	5.14	4.00	11.53	18.57	19.70	20.46	7.89	10.81	35
	30	5.00	3.92	11.32	18.07	19.50	20.11	7.77	10.50	30
	25	4.87	3.80	11.10	17.67	19.20	19.67	7.64	10.16	25
	20	4.64	3.71	10.90	17.00	18.90	19.10	7.50	9.74	20
	15	4.45	3.62	10.59	16.24	18.55	18.32	7.29	9.23	15
	10	4.21	3.50	10.18	15.40	18.00	17.64	7.00	8.53	10
	5	3.69	3.29	9.41	13.33	17.26	16.51	6.56	7.12	5
STATE MEAN		5.56	4.21	11.90	19.44	20.04	20.97	8.01	11.10	
STANDARD DEVIATION		1.09	0.61	1.30	3.11	1.46	2.37	0.73	1.92	

TABLE 5 (Continued)

1983 PERCENTILE DISTRIBUTION OF VARIABLES - GRADE 5 SCHOOLS N=610

	PERCENTILE RANK	17 PAREDUC	18 PAROCC	21 PCTGIRLS	22 RESIDE	23 PCTWHITE	24 LIBRARY	25 STABLE	PERCENTILE RANK
PERCENTILE DISTRIBUTION	95	5.07	78.69	62.90	7.00	100.00	2.72	3.88	95
	90	4.61	72.64	58.33	6.72	100.00	2.51	3.85	90
	85	4.32	68.12	56.14	5.62	100.00	2.32	3.82	85
	80	4.16	64.64	53.93	5.00	100.00	2.19	3.79	80
	75	4.00	61.97	52.86	4.92	100.00	2.04	3.76	75
	70	3.90	60.49	51.79	4.00	98.61	1.98	3.75	70
	65	3.80	58.05	51.02	4.00	97.87	1.90	3.73	65
	60	3.72	55.82	50.00	3.87	97.30	1.83	3.70	60
	55	3.67	54.63	48.98	2.86	96.49	1.76	3.69	55
	50	3.59	52.78	48.21	2.00	95.83	1.65	3.66	50
	45	3.54	51.11	47.50	1.10	95.00	1.53	3.64	45
	40	3.49	49.99	46.75	1.00	93.94	1.41	3.61	40
	35	3.45	48.20	45.83	0.90	92.31	1.28	3.59	35
	30	3.38	46.49	44.90	0.77	90.91	1.18	3.54	30
	25	3.33	44.57	43.75	0.62	87.62	1.10	3.50	25
	20	3.25	42.72	42.55	0.48	83.93	1.05	3.46	20
	15	3.16	39.70	41.10	0.35	72.73	1.02	3.40	15
	10	3.07	36.43	38.67	0.20	56.25	1.00	3.31	10
	5	2.87	30.83	35.29	0.00	6.98	1.00	3.21	5
STATE MEAN		3.74	53.56	48.47	2.73	86.34	1.66	3.62	
STANDARD DEVIATION		0.67	13.92	8.13	2.36	24.09	0.59	0.21	

TABLE 5 (Continued)

1983 PERCENTILE DISTRIBUTION OF VARIABLES - GRADE 5 SCHOOLS N=610

PERCENTILE DISTRIBUTION	PERCENTILE RANK	26 FAMSIZE	27 FAMORDER	28 SPARINT	29 HOMEWORK	30 TVWATCH	34 HOMEREAD	35 HOMECLIM	PERCENTILE RANK
	95	3.05	1.41	7.11	2.46	2.91	12.14	27.37	95
	90	2.77	1.38	6.92	2.29	2.76	11.83	26.97	90
	85	2.64	1.34	6.80	2.23	2.67	11.62	26.70	85
	80	2.52	1.31	6.69	2.17	2.62	11.44	26.45	80
	75	2.44	1.29	6.61	2.13	2.57	11.32	26.27	75
	70	2.32	1.27	6.52	2.09	2.50	11.18	26.15	70
	65	2.25	1.26	6.47	2.06	2.44	11.06	26.05	65
	60	2.18	1.24	6.42	2.02	2.39	10.97	25.86	60
	55	2.12	1.22	6.35	2.00	2.33	10.85	25.69	55
	50	2.06	1.21	6.31	1.96	2.29	10.72	25.57	50
	45	2.01	1.19	6.24	1.94	2.25	10.60	25.40	45
	40	1.96	1.18	6.17	1.90	2.19	10.46	25.24	40
	35	1.91	1.16	6.12	1.86	2.13	10.33	25.13	35
	30	1.86	1.14	6.05	1.83	2.08	10.17	25.02	30
	25	1.81	1.12	5.96	1.79	2.00	10.03	24.89	25
	20	1.75	1.09	5.85	1.74	1.95	9.85	24.67	20
	15	1.71	1.05	5.73	1.69	1.86	9.67	24.46	15
	10	1.65	1.02	5.61	1.63	1.73	9.38	24.13	10
	5	1.54	0.96	5.40	1.53	1.55	8.93	23.63	5
STATE MEAN		2.15	1.20	6.28	1.96	2.27	10.64	25.55	
STANDARD DEVIATION		0.46	0.14	0.53	0.27	0.41	0.97	1.17	

TABLE 8

STATEWIDE ITEM REPLIES FOR SELECTED CONDITION VARIABLES
(By Percentages)

1983

	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied
5 TSATPAR (Teacher Satisfaction with Relationships with Parents)				
In your teaching situation, how satisfied are you with your relationships with parents and parent groups?	40	48	10	2

	Not a Problem	Moderate Problem	Serious Problem	Critical Problem
11 EXTRACT (Activities External to the Classroom)				
There are too few activities which recognize the talent of our students.	44	42	11	2
There is little emphasis on vocational development.	51	32	11	4
There is no time or place for students and teachers to interact outside of the classroom.	49	36	11	3
Not enough teachers are involved in helping students overcome problems.	57	33	7	2
Not enough teachers actively participate in extracurricular activities.	53	36	8	2
12 TRELATE (Teacher/Student/Parent Relationships)				
The students in this school aren't really interested in learning.	38	53	8	1
Too many of my students are indifferent to school.	40	47	10	2
There is not enough parent-teacher interaction.	46	40	10	3
Too many parents take little or no interest in their children's school work.	22	51	20	7
The quality of teacher-parent interaction is not good.	48	40	8	2
When a problem arises involving a community group, the teachers have little input into the solution.	31	44	18	6
The parents do not support what the school does.	39	47	11	3
The parents do not place a high value on education.	33	47	15	4
Students in this school have poor study habits.	14	55	23	7
13 DISRUPT (Factors Disruptive to Classroom Management)				
The different races or ethnic groups don't get along well together.	83	15	1	0
The achievement levels of my students are too heterogeneous.	41	43	12	3
Health and nutrition problems seem to affect the learning of my students.	51	37	8	2
The emphasis on athletics in this school disrupts classroom learning.	85	11	3	1
The competition for grades at this school puts too much pressure on students.	75	22	3	1
My students are chronically absent from school.	66	28	4	1
There are too many outside interruptions during class periods.	45	38	11	5
I have to spend too much time on non-instructional duties.	36	41	15	7
14 INFLUENC (Teacher Influence Upon Instructional Decisions)				
Physical facilities of this school limit the kinds of programs provided for students.	51	32	11	6
I work with too many students each day.	52	30	10	7
Lack of freedom to teach the way I want to makes me less effective with my students.	75	18	4	2
Teachers have little control over matters such as textbook selection, curriculum and instructional programs.	57	32	7	3
When new curriculum programs are initiated, I am not consulted or trained.	56	32	8	3
My teaching is limited by the quality of, or lack of, instructional equipment and materials.	59	31	7	3
Having to teach special education students in regular classes is a problem.	54	30	10	5
There is too little teacher input in solving administrative problems.	33	44	15	7
In-service education provided by the district does not meet my needs.	29	40	19	11

TABLE 8 (Continued)

	Not a Problem	Moderate Problem	Serious Problem	Critical Problem
15 TSTAFF (Staff Interpersonal Relationships)				
The support staff in this school is not cooperative.	80	16	3	1
The teachers don't seem to be able to work well together.	74	21	4	1
There is little interaction among teachers in this school, i.e. everyone is doing his/her own thing.	57	33	7	2
16 DISCPROB (Discipline Problems)				
Too much time is spent on discipline problems.	43	38	12	7
The values held by the students are in conflict with those of the school.	43	42	11	3
Too little support on discipline is provided by administrators.	54	29	11	6
Too little support on discipline is given by the parents.	24	48	20	8
Disruption of my class(es) by students is a continuing frustration.	47	36	11	6

	Almost Always	Usually	Sometimes	Almost Never
28 SPARINT (Student Perception of Parental Interest in School)				
My parents enjoy hearing about school.	49	25	21	3
My parents feel the school is doing a good job.	48	30	17	3
My parents support what the school does.	27	30	31	9

29 HOMEWORK (Amount of Homework)

From the time you get home from school until you go to bed, how much time do you usually spend on homework?

About three hours (or more)	7
About two hours	19
About one hour	41
Less than one hour	30
None	2

30 TVWATCH (Student Time Spent Watching Television)

From the time you get home from school until you go to bed, how much time do you usually spend watching TV?

About five hours (or more)	27
About four hours	18
About three hours	22
About two hours	19
About one hour (or less)	13

TABLE 7

CORRELATION COEFFICIENTS BETWEEN SCHOOL CONDITION VARIABLE SCORES AND SCHOOL SCORES GRADE 5, 1983 NORMATIVE GROUP, N=610

	SE	UO	RC	W	M	IS	SR	KL	HK	C	CA	AH	KH	IU*
1. GRENROLL	-.10	-.13		-.09	-.08	-.08	-.15	-.08			-.09	-.09		
2. PCTTILI	-.36	-.56	-.71	-.73	-.64	.19	-.24	-.64	-.71	-.09	-.71	.17	-.65	-.68
3. TUITION	.11				.08		-.19	-.09		.26				
4. TLOCALE		-.22	-.19	-.18	-.16			-.12	-.11	-.23	-.15		-.15	-.15
5. TSATPAR	.37	.42	.53	.57	.54		.23	.52	.54	.13	.56		.53	.51
6. TEDUC		-.15	-.24	-.17	-.12		-.28	-.22	-.29	.20	-.22		-.09	-.19
7. TEXPER						.08			-.08					
8. CLSIZE	-.25	-.32	-.38	-.39	-.35		-.17	-.32	-.39		-.40		-.33	-.38
9. READTIME														-.08
10. MATHTIME		-.16	-.21	-.20	-.15		-.10	-.17	-.23	-.08	-.20		-.18	-.22
11. EXTRACT	.36	.40	.48	.52	.49		.26	.47	.52	.11	.51		.47	.47
12. TRELATE	.50	.52	.65	.69	.65		.29	.62	.65	.16	.65		.63	.63
13. DISRUPT	.38	.39	.48	.49	.47		.28	.51	.56		.52		.45	.46
14. INFLUENC	.33	.34	.44	.45	.43		.22	.42	.47		.46		.39	.41
15. TSTAFF	.27	.34	.38	.39	.35		.27	.37	.42		.41		.36	.34
16. DISCPROB	.41	.49	.59	.59	.55		.35	.54	.63		.61		.53	.55
17. PAREDUC	.39	.45	.58	.64	.58	-.10		.53	.53	.31	.56	-.11	.63	.58
18. PAROCC	.45	.52	.67	.71	.64	-.12	.11	.60	.64	.23	.64	-.14	.66	.66
21. PCTGIRLS							.17	-.08						
22. RESIDE	-.08	-.36	-.48	-.37	-.29	.13	-.33	-.42	-.51	.18	-.45	.08	-.28	-.39
23. PCTWHITE	.30	.53	.66	.63	.55	-.21	.47	.63	.76	-.13	.71	-.11	.54	.62
24. LIBRARY	.21	.27	.37	.40	.34		.10	.32	.33	.24	.36		.39	.33
25. STABLE	.29	.37	.52	.50	.42	-.17	.25	.52	.57	-.08	.54	-.09	.44	.49
26. FAMSIZE	-.41	-.44	-.57	-.60	-.52	.11	-.19	-.54	-.62		-.58	.09	-.54	-.57
27. FAMORDER	.31	.32	.36	.41	.35		.15	.33	.42		.40		.38	.37
28. SPARINT	.51	.42	.36	.40	.36	.39	.34	.36	.34	.19	.36	.21	.37	.36
29. HOMEWORK		.12	.13	.14	.08				.10	.12	.10	.09	.08	.13
30. TVWATCH	-.35	-.45	-.59	-.58	-.52		-.28	-.51	-.54	-.22	-.54		-.54	-.58
34. HOMEREAD	.42	.52	.65	.69	.62		.20	.61	.65	.28	.65		.67	.63
35. HOMECLIM	.39	.19	.16	.22	.16	.26	.12	.18	.22	.14	.18	.19	.18	.19

Note: All correlation coefficients have been rounded to two decimal places.
Only $r \geq 0.08$ are printed because:
$r \geq 0.08$ is significant at the .05 level.
$r \geq 0.11$ is significant at the .01 level.

*See Table 2 on page 10 for area descriptors.

TABLE 8

CORRELATION COEFFICIENTS AMONG
SCHOOL CONDITION VARIABLE SCORES
GRADE 5, 1983 NORMATIVE GROUP, N=610

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	21	22	23	24	25	26	27	28	29	30	34	35
1. GRENROLL																														
2. PCTITLI																														
3. TUITION																														
4. TLOCALE		.22																												
5. TSATPAR	-.16	-.55		-.12																										
6. TEDUC		.17	.37																											
7. TEXPER			.19			.22																								
8. CLSIZE	.33	.24	-.16	.10	-.27	.10																								
9. READTIME		.11																												
10. MATHTIME		.21		.10				.11	.59																					
11. EXTRACT	-.09	-.49		-.14	.57	-.12		-.33		-.14																				
12. TRELATE	-.11	-.63	.11	-.12	.80	-.08		-.30		-.14	.72																			
13. DISRUPT	-.19	-.43			.63	-.17		-.34		-.09	.62	.74																		
14. INFLUENC	-.13	-.39		-.11	.54	-.13		-.43	.08	-.08	.67	.62	.73																	
15. TSTAFF	-.22	-.30			.46	-.19		-.32	.12		.60	.50	.54	.56																
16. DISCPROB	-.16	-.53		-.13	.69	-.20		-.33		-.11	.62	.82	.81	.68	.54															
17. PAREDUC	.09	-.58	.32	-.20	.44	.09		-.26		-.09	.36	.54	.26	.29	.20	.34														
18. PAROCC	.06	-.75	.23	-.24	.52			-.24	-.08	-.16	.46	.64	.37	.36	.26	.45	.86													
21. PCTGIRLS																														
22. RESIDE		.37	.38	.11	-.24	.46	.34	.15		.16	-.18	-.23	-.35	-.24	-.23	-.40		-.16												
23. PCTWHITE	-.12	-.61	-.26		.50	-.40	-.21	-.34		-.17	.42	.49	.52	.42	.40	.61	.26	.40		-.65										
24. LIBRARY		-.38	.24	-.16	.32			-.23		-.18	.29	.37	.24	.34	.18	.30	.39	.40		-.15	.23									
25. STABLE		-.45	-.10		.38	-.22	-.13	-.22			.28	.40	.40	.29	.23	.42	.27	.38		-.47	.57	.18								
26. FAMSIZE		.62			-.45	.12		.22		.17	-.47	-.56	-.42	-.38	-.26	-.45	-.50	-.62		.25	-.48	-.30	-.44							
27. FAMORDER		-.40			.31			-.16		-.08	.35	.41	.27	.26	.21	.30	.34	.40		-.12	.30	.24	.24	-.73						
28. SPARINT		-.28	.16	-.13	.33		.11	-.18	.09		.33	.45	.32	.31	.26	.33	.35	.37			.21	.31	.22	-.34						
29. HOMEWORK	.11	-.14		.09	.09							.11				.08	.21	.18		-.08		.10		-.13						
30. TVWATCH	-.03	.50	-.16	.25	-.36	.14		.25	.10	.17	-.32	-.45	-.25	-.25	-.20	-.36	-.60	-.57		.21	-.39	-.33	-.26	.38	-.24	-.33	-.30			
34. HOMEREAD		-.68		-.21	.48	-.10		-.22		-.14	.43	.60	.40	.36	.27	.45	.69	.75		-.27	.44	.38	.45	-.56	.36	.39	.18	-.45		
35. HOMECLIM		-.14	.17	.08	.14				.08		.16	.25	.17	.15	.10	.16	.30	.26				.13	.17	-.28	.22	.36	.12	-.20	.29	

Note: All correlation coefficients have been rounded to two decimal places.
Only $r \geq .08$ are printed because:
$r \geq .08$ is significant at the .05 level.
$r \geq .11$ is significant at the .01 level.

CRITERION-REFERENCED SCORING

Another way of viewing EQA results is to compare them to a criterion, or standard, rather than to a norm, or average score.

Criteria chosen for the EQA report are at three levels: one third of the items answered in a positive way, a majority (one more than half of the items) in a positive way, and two-thirds of the items in a positive direction.

For cognitive scales "positive" simply means "correct." However, for the non-cognitive scales a dichotomized approach was applied; the student's response is considered either positive or non-positive. For example, consider an item from the self-esteem instrument:

I am able to mix well with other people.

A.	Strongly Agree	(Positive)
B.	Mostly Agree	(Positive)
C.	Mostly Disagree	(Non-positive)
D.	Strongly Disagree	(Non-positive)

For the middle criterion level, if a student answers a majority of the 11 self-esteem items of his/her form (six or more) positively, that student is said to have reached that criterion level. The number of such students is then tallied for the school and expressed as a per cent of all the students completing the inventory. For example, 65 per cent of a school's students have reached the middle criterion; conversely, 35 per cent of the students don't answer even a majority of the items positively. Accepting this criterion, it might be concluded for this school that 35 per cent of the students do not have a positive self-esteem.

In the school report, the per cent of students in the school responding positively to a majority of items (one more than half of the items positive) is given for each measured area and the per cent of students statewide at the corresponding level is presented for comparison. Also, similar information is presented for the two other criterion levels – the more stringent (two thirds) or less rigorous (one-third) criterion.

SCORE DISTRIBUTIONS

It is possible for two very different groups of students to obtain the same mean score on any of the EQA scales. A school with a large number of average students and a school with about half low-scoring students and half high-scoring students could have the same mean score. Since such possibilities exist, it may be wise to look at score distributions within each building. Therefore, the distribution of scores for each area measured is included in the school report.

For each performance area measured, a graphic presentation of the distribution of scores is presented on pages 8 and 9 of the school report. The actual percentage of students scoring at a specific point or within a given range is printed to the right of each graph.

Statewide normative group data are presented on the following pages so that a comparison of the school's distribution to that of the state can be made. In most cases, a school's distribution with more student scores at the lower end of the scale than in the state distribution represents a lower percentile score and, conversely, one with more scores at the upper end represents a higher percentile score.

From these distributions, it can be determined if there is a large group of average students or if there are large numbers of low-scoring students who may need an improvement program. Often the approach taken in curriculum design or curriculum change can differ in relationship to these distributions.

GRADE 5—STATEWIDE

1983 DISTRIBUTION OF STUDENT OUTCOMES BY SCORE CATEGORY WITHIN AREAS

SCORE	SELF-ESTEEM	PCT.
	0----1----2----3----4----5-	
0-3	*	0
4-6	*	0
7-9	*X	1
10-12	*XX	4
13-15	*XXXXX	9
16-18	*XXXXXXXXX	17
19-21	*XXXXXXXXXXX	22
22-24	*XXXXXXXXXXX	22
25-27	*XXXXXXXX	15
28-30	*XXXX	7
31-33	*X	2
	0----1----2----3----4----5-	

SCORE	UNDERSTANDING OTHERS	PCT.
	0----1----2----3----4----5-	
0-4	*	0
5-8	*	0
9-12	*	0
13-16	*	0
17-20	*X	2
21-24	*XX	4
25-28	*XXXXX	9
29-32	*XXXXXXX	14
33-36	*XXXXXXXX	16
37-40	*XXXXXXXX	16
41-44	*XXXX	7
45-48	*XXX	6
49-52	*XXXX	7
53-56	*XXXX	8
57-60	*XXXXXX	11
	0----1----2----3----4----5-	

SCORE	READING COMPREHENSION	PCT.
	0----1----2----3----4----5-	
0	*	0
1	*X	1
2	*X	2
3	*XX	4
4	*XXX	6
5	*XXXX	7
6	*XXXX	7
7	*XXXX	7
8	*XXXX	7
9	*XXXX	8
10	*XXXX	8
11	*XXXXX	9
12	*XXXXX	9
13	*XXXXX	9
14	*XXXX	8
15	*XXX	5
16	*X	2
	0----1----2----3----4----5-	

SCORE	WRITING	PCT.
	0----1----2----3----4----5-	
0	*	0
1	*	0
2	*X	1
3	*X	2
4	*XX	3
5	*XX	4
6	*XXY	6
7	*XXXX	7
8	*XXXXX	9
9	*XXXXX	10
10	*XXXXXX	11
11	*XXXXXX	12
12	*XXXXXX	12
13	*XXXXXX	11
14	*XXXX	8
15	*XX	4
	0----1----2----3----4----5-	

SCORE	HEALTH KNOWLEDGE	PCT.
	0----1----2----3----4----5-	
0	*	0
1	*	0
2	*X	1
3	*X	1
4	*X	2
5	*XX	3
6	*XXX	5
7	*XXX	6
8	*XXXX	8
9	*XXXXXX	11
10	*XXXXXXX	14
11	*XXXXXXXX	15
12	*XXXXXXX	14
13	*XXXXXX	11
14	*XXX	6
15	*X	2
	0----1----2----3----4----5-	

SCORE	INTEREST IN SCHOOL/LRNG.	PCT.
	0----1----2----3----4----5-	
0-3	*	0
4-6	*X	1
7-9	*X	2
10-12	*XXX	6
13-15	*XXXXXXXX	15
16-18	*XXXXXXXXXXXX	25
19-21	*XXXXXXXXXXXXX	28
22-24	*XXXXXXXXX	18
25-27	*XXX	5
	0----1----2----3----4----5-	

SCORE	SOCIETAL RESPONSIBILITY	PCT.
	0----1----2----3----4----5-	
0-3	*X	1
4-6	*X	2
7-9	*XXXX	7
10-12	*XXXXXXXX	16
13-15	*XXXXXXXXXXXXXXXX	32
16-18	*XXXXXXXXXXXXXXXXXXXXXX	43
	0----1----2----3----4----5-	

SCORE	KNOWLEDGE OF LAW / GOVT.	PCT.
	0----1----2----3----4----5-	
0	*X	2
1	*XXXX	8
2	*XXXXXXXX	15
3	*XXXXXXXXXX	20
4	*XXXXXXXXXXX	21
5	*XXXXXXXXX	18
6	*XXXXXX	12
7	*XX	4
	0----1----2----3----4----5-	

SCORE	MATHEMATICS	PCT.
	0----1----2----3----4----5-	
0	*	0
1	*	0
2	*	0
3	*	0
4	*X	1
5	*X	2
6	*X	2
7	*XX	3
8	*XXX	5
9	*XXX	6
10	*XXXX	8
11	*XXXXX	10
12	*XXXXXX	11
13	*XXXXXX	11
14	*XXXXXX	11
15	*XXXXX	10
16	*XXXX	8
17	*XXX	6
18	*XX	4
19	*X	2
20	*	0
	0----1----2----3----4----5-	

GRADE 5—STATEWIDE

1983 DISTRIBUTION OF STUDENT OUTCOMES BY SCORE CATEGORY WITHIN AREAS

SCORE	CREATIVE ACTIVITIES	PCT.
	0----1----2----3----4----5-	
0-3	*X	* 2
4-6	*XXX	* 6
7-9	*XXXXX	* 10
10-12	*XXXXXXX	* 13
13-15	*XXXXXXX	* 13
16-18	*XXXXXXX	* 13
19-21	*XXXXXX	* 12
22-24	*XXXXXX	* 11
25-27	*XXXX	* 8
28-30	*XXX	* 5
31-33	*XX	* 3
34-48	*XX	* 4
	0----1----2----3----4----5-	

SCORE	CAREER AWARENESS	PCT.
	0----1----2----3----4----5-	
0	*	* 0
1	*X	* 1
2	*X	* 2
3	*XX	* 3
4	*XXX	* 5
5	*XXX	* 6
6	*XXXX	* 8
7	*XXXXXX	* 11
8	*XXXXXXX	* 14
9	*XXXXXXXX	* 15
10	*XXXXXXXX	* 15
11	*XXXXXX	* 11
12	*XXX	* 6
13	*X	* 2
14	*	* 0
	0----1----2----3----4----5-	

SCORE	APPRECIATING HUMAN ACCOM.	PCT.
	0----1----2----3----4----5-	
0-4	*	* 0
5-8	*	* 0
9-12	*	* 0
13-16	*X	* 1
17-20	*X	* 1
21-24	*X	* 2
25-28	*X	* 2
29-32	*XX	* 4
33-36	*XXX	* 6
37-40	*XXXXX	* 10
41-44	*XXXXX	* 10
45-48	*XXXXX	* 10
49-52	*XXXXXX	* 11
53-56	*XXXXX	* 10
57-60	*XXXXX	* 9
61-64	*XXXX	* 8
65-76	*XXXXXXXX	* 15
	0----1----2----3----4----5-	

SCORE	KNOWLEDGE HUMAN ACCOM.	PCT.
	0----1----2----3----4----5-	
0	*X	* 1
1	*X	* 2
2	*XX	* 4
3	*XXX	* 6
4	*XXXX	* 8
5	*XXXXX	* 10
6	*XXXXXX	* 11
7	*XXXXXX	* 12
8	*XXXXXX	* 12
9	*XXXXXX	* 11
10	*XXXXX	* 10
11	*XXXX	* 7
12	*XX	* 4
13	*X	* 2
14	*X	* 1
15	*	* 0
	0----1----2----3----4----5-	

SCORE	INFORMATION USAGE	PCT.
	0----1----2----3----4----5-	
0	*X	* 1
1	*XX	* 3
2	*XXX	* 6
3	*XXXX	* 8
4	*XXXXX	* 10
5	*XXXXX	* 10
6	*XXXXXX	* 11
7	*XXXXXX	* 12
8	*XXXXXXX	* 14
9	*XXXXXXX	* 13
10	*XXXXX	* 9
11	*XX	* 3
	0----1----2----3----4----5-	

ITEM RESPONSE DATA

Item response data is information on the per cent of students responding to each of the possible answers for each item on the battery. It can be useful for diagnostic purposes and needs assessment.

Item response data can be used as an absolute scale, since the per cent of students responding to each of the options can be viewed for the facts it presents. For example, if 50 per cent of the students of a school respond *strongly disagree* and another 25 per cent respond *mostly disagree* to the item *"I like school,"* the school administrator knows that many students are unhappy about their school experiences.

Item response data can also be used for comparison. The statewide item data are needed for this purpose.

School Item Response Data

In the school report, item response data are presented by area by form. For noncognitive scales, as in Figure 1 below, the percentages are given for each response, and an asterisk (*) signifies the end of the continuum representing the most positive approach to the item. For the Figure 1 example, the response options for the area *Interest in School and Learning* are (1) Strongly agree, (2) Mostly agree, (3) Mostly disagree, and (4) Strongly disagree. Therefore, 30 percent of the students gave the *strongly agree* response to Item 1 on Form A, 54 per cent gave a *mostly agree* response and so on. The asterisk indicates that *strongly agree* is the most positive response. This Grade 11 item (found with the statewide item data) is *"When I make a mistake, my teachers correct me without hurting my feelings."* The differing position of the asterisk for Item 5 indicates that the "strongly disagree" response is the most positive. That item is negatively worded - *"I feel unhappy about my school work."*

FIGURE 1

Item Frequency Analysis for Interest in School and Learning

			Per Cent Response by Option			
FORM	**ITEM**	**OMIT**	**1**	**2**	**3**	**4**
A	1	0	30*	54	10	6
	2	1	23*	51	18	8
	3	0	37*	43	18	2
	4	1	20*	25	25	29
	5	2	40	26	23	11*
	.					
	.					
	.					
	10					

For cognitive scales in the school report, the *correct* answer is marked with an asterisk(*). The per cent of students responding to each of the distractors (wrong answers) is also given. This permits further diagnosis when comparisons are made with the actual items. Test copies will be available for this purpose upon request and justification.

Using Statewide Item Data for Comparisons

The statewide item data are also organized according to area by form. For the noncognitive areas, items are given with the per cent responding to each option. The asterisk (*) signifies the most positive response. For the cognitive areas, the concept and/or the classification of each item is given with the per cent correct.

For noncognitive scales, the following process can be used to identify items which contribute most heavily to a low area score. First, compute the percentage of positive item responses in a school report by adding the percentages for those options which represent a positive response to the item. From this school figure, subtract the statewide percentage of positive responses determined in the same manner from the statewide item data. A positive value shows that the percentage of students in the building answering in a positive direction exceeded the state figure. Conversely, a negative value indicates that the percentage of students in the building answering in a positive direction is *lower* than the state figure. Those items with the larger negative values are the best candidates for close examination since they probably represent the areas of need. On the other side of the ledger, strong points are suggested by the items having the larger positive values. Figure 2 is an illustration of this procedure.

FIGURE 2

Item	School X	Statewide	Difference
1	84	77	7
2	74	75	- 1
3	80	74	6
4	45	43	2
5	34	47	- 13
.	.	.	.
.	.	.	.
.	.	.	.

Using the data from Figure 1, the percentage of positive responses has been computed and is displayed under the column labeled *"School X."* The adjacent statewide figures came from the state item data. The illustration shows that either positive values or only minor negative values exist for items 1 to 4. Item 5, showing a negative value of 13 percentage points, suggests an area of probable weakness that should be considered for examination.

The same process can be used for cognitive scales. Per cent positive in these cases would simply be per cent correct.

Item analysis processes, which give further direction and which group items according to topics with an area, are available from the EQA office.

STATEWIDE ITEM DATA

SELF-ESTEEM

Form A	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
1. My teachers usually tell me when they think I have done good work.	44*	41	7	4
2. I have a hard time deciding what to study.	12	26	28	30*
3. My classmates think I have good ideas.	19*	48	20	12
4. If I win a game, it's usually because I get lucky.	23	24	24	29*
5. I feel that my teachers understand me.	36*	41	12	10
6. Even when I know how to do something, I ask for help from others.	12	18	25	44*
7. My teachers sometimes make me feel that I cannot do good work.	16	19	27	37*
8. My classmates seem to like me.	46*	37	9	7
9. I can give a good report in front of the class.	23*	41	19	16
10. My teachers don't think that what I say is important.	11	18	33	38*
11. I feel unhappy about my schoolwork.	14	17	31	37*

Form B				
1. I'm proud of my schoolwork.	40*	46	8	5
2. My teachers want better work from me than I can do.	25	25	25	22*
3. I spend a lot of time daydreaming in school.	8	11	25	55*
4. I feel that my teachers like me.	39*	43	9	8
5. I often forget to listen to what others are saying.	10	25	33	31*
6. I do not make friends as easily as most other people.	16	18	23	43*
7. My teachers think I have good ideas.	17*	47	22	12
8. It bothers me if my classmates disagree with what I think.	18	25	32	24*
9. I am able to do many things well in school.	44*	42	9	5
10. I'm often called upon by the teacher to help out in the classroom.	17*	35	26	20
11. My classmates often make fun of me.	15	15	25	43*

Form C	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
1. In school I am often asked to be a leader.	12*	29	30	27
2. My teachers do not let me try out my ideas.	11	25	29	32*
3. I get along well with kids in my class.	49*	36	8	6
4. My teachers often make me feel that I can't do anything right.	13	16	26	45*
5. I give up if I don't understand something.	9	13	27	51*
6. I am good at picking out the right things to study.	25*	45	17	12
7. I often feel that other kids are better liked than I am.	28	25	26	21*
8. It is easy for me to give a talk in front of the class.	17*	25	25	32
9. I am usually one of the last to be chosen for a team.	21	18	25	35*
10. When I make a mistake, my teachers correct me without hurting my feelings.	50*	27	11	11
11. I can't seem to do anything in school very well.	9	13	28	49*

UNDERSTANDING OTHERS

Form A

	Yes	I think so	I don't know	I don't think so	No
Your class is having a big party and will be inviting a lot of people. Would you want a student to come to the party who:					
1. Is much poorer than you?	44*	16	20	5	13
2. Believes things about God and religion which you do not believe?	45	17	18	6	13
3. Is very much like you, but whose skin color is different from yours?	61*	14	13	4	9
4. Is from another country and doesn't speak English very well?	42*	21	18	7	12
5. Has few friends because of the way he or she looks?	38*	18	21	8	15
Your teacher has divided your class into groups. Each group will work for a few weeks on a project. Would you mind if your group leader is:					
6. A student much poorer than you?	15	8	13	8	56*
7. A student who belongs to a religion which you do not belong to?	14	9	15	10	52*
8. A student from another country whose way of life is very different from ours?	15	11	19	13	42*
9. A student who has few friends because of the way he or she looks?	15	9	19	12	45*
10. A student whose skin color is different from yours?	17	8	12	7	56*
Your class is electing a class president. Would you be willing to vote for:					
11. A student who is very much like you, but whose skin color is different from yours?	62*	11	12	4	10
12. A student from another country whose way of life is very different from ours?	41*	18	20	7	13
13. A student who is made fun of by many people because of the way he or she looks?	39*	14	20	8	19
14. A student much richer than you?	47*	14	17	6	15
15. A student who believes things about God and religion which you do not believe?	51*	14	18	5	12

Form B

	Yes	I think so	I don't know	I don't think so	No
Your teacher has asked some of your classmates to be judges of class projects. Would you mind if the person who judges your project is:					
1. A student who is made fun of by many people because of the way he or she looks?	23	10	15	12	39*
2. A student whose skin color is different from yours?	12	7	8	9	64*
3. A student much richer than you?	13	8	15	13	52*
4. A student from another country whose way of life is very different from ours?	13	9	15	14	48*
5. A student who believes things about God and religion which you do not believe?	13	6	13	10	57*
You and your friends have started a club at school. The club needs some more members. Would you want a student to join who:					
6. Is from another country whose way of life is very different from ours?	39*	16	19	8	17
7. Belongs to a religion which you do not belong to?	38*	15	19	8	20
8. Has few friends because of the way he or she looks?	36*	14	20	9	20
9. Has skin which is a different color from yours?	48*	13	12	6	21
10. Is much poorer than you?	45*	13	14	6	21
Would you mind sitting in class beside a student who:					
11. Has few friends because of the way he or she looks?	16	8	17	11	48*
12. Is very much like you, but whose skin color is different from yours?	14	6	9	6	62*
13. Is much poorer than you?	11	7	13	10	59*
14. Belongs to a religion which you do not belong to?	13	6	15	10	56*
15. Is from another country and doesn't speak English very well?	15	7	15	11	51*

Form C

	Yes	I think so	I don't know	I don't think so	No
You are looking for someone to play your favorite game with you at school. Would you enjoy playing the game with:					
1. A student who is very much like you, but whose skin color is different from yours?	55*	17	13	4	9
2. A student much richer than you?	39*	20	20	8	13
3. A student who is made fun of by many people because of the way he or she looks?	32*	16	21	10	20
4. A student who belongs to a religion which you do not belong to?	51*	17	17	5	9
5. A student from another country who doesn't speak English very well?	41*	20	18	7	13
You and another student must do a school project together. Would you mind if the person who works with you is:					
6. A student who is made fun of by many people because of the way he or she looks?	24	13	21	10	32*
7. A student who belongs to a religion which you do not belong to?	26	13	15	8	37*
8. A student whose skin color is different from yours?	30	12	13	8	37*
9. A student from another country whose way of life is very different from ours?	22	14	21	12	30*
10. A student much richer than you?	26	13	17	10	33*
Suppose there is something you really want to learn how to do. Each of the students listed below is very good at doing it and would be willing to teach you. Would you want to learn it from:					
11. A student from another country whose way of life is very different from ours?	42*	15	19	8	16
12. A student who is made fun of by many people because of the way he or she looks?	31*	17	22	9	21
13. A student who is very much like you, but whose skin color is different from yours?	57*	15	13	5	10
14. A student who believes things about God and religion which you do not believe?	49*	14	18	6	13
15. A student much richer than you?	45*	17	16	6	14

COMMUNICATION SKILLS: READING COMPREHENSION

Form A	Percent Correct
1. I-Inferring cause and effect	43
2. I-Using supporting details	44
3. I-Using supporting details	67
4. I-Using supporting details	69
5. I-Using supporting details	63
6. I-Drawing conclusions	56
7. I-Drawing conclusions	44
8. I-Inferring main idea	68
9. I-Inferring main idea	65
10. I-Predicting outcomes	49
11. L-Identifying supporting details	47
12. L-Identifying supporting details	79
13. L-Identifying supporting details	61
14. IW-Inferring meaning/multiple meaning word	58
15. I-Using supporting details	40
16. L-Identifying main idea	47

Form B	Percent Correct
1. I-Using supporting details	29
2. I-Using supporting details	50
3. L-Identifying main idea	78
4. L-Identifying supporting details	59
5. I-Drawing conclusions	44
6. I-Inferring main idea	67
7. I-Inferring cause and effect	43
8. I-Inferring cause and effect	58
9. I-Using supporting details	75
10. L-Identifying cause and effect	63
11. I-Using supporting details	54
12. I-Drawing conclusions	57
13. I-Using supporting details	65
14. I-Using supporting details	66
15. L-Identifying cause and effect	62
16. I-Drawing conclusions	65

Form C	Percent Correct
1. I-Using supporting details	64
2. I-Using supporting details	83
3. I-Using supporting details	73
4. IW-Inferring word meaning	59
5. I-Drawing conclusions	50
6. I-Drawing conclusions	45
7. I-Using supporting details	54
8. L-Identifying supporting details	73
9. L-Identifying main idea	52
10. I-Drawing conclusions	64
11. I-Determining author's point of view	40
12. I-Inferring main idea	56
13. I-Inferring cause and effect	68
14. L-Identifying main idea	57
15. I-Drawing conclusions	54
16. I-Predicting outcomes	54

Code

L - Literal comprehension - students must identify main ideas, cause and effect or supporting details explicitly stated in a passage

IW - Word meaning/contextual analysis - students must use context clues to infer the (appropriate) meaning of a (multiple-meaning) word

I - Inferential comprehension - students must take the meaning of a passage beyond explicit ideas by inferring main ideas, using supporting details, inferring cause and effect, drawing conclusions, predicting outcomes, determining author's point of view, or making judgments

COMMUNICATION SKILLS: WRITING SKILLS

Form A	Percent Correct
1. Punctuation	76
2. Word usage	58
3. Word usage	91
4. Word usage	75
5. Distinguishing between sentences and fragments or run-ons	59
6. Distinguishing between sentences and fragments or run-ons	72
7. Distinguishing between sentences and fragments or run-ons	61
8. Rewriting sentences	53
9. Rewriting sentences	62
10. Combining sentences	57
11. Combining sentences	59
12. Using connective words	80
13. Using connective words	77
14. Using connective words	65
15. Determine relevance of sentences or ideas	51

Form B	Percent Correct
1. Capitalization	91
2. Word usage	81
3. Punctuation	66
4. Word usage	57
5. Distinguishing between sentences and fragments or run-ons	62
6. Distinguishing between sentences and fragments or run-ons	63
7. Rewriting sentences	78
8. Distinguishing between sentences and fragments or run-ons	58
9. Rewriting sentences	50
10. Rewriting sentences	65
11. Combining sentences	73
12. Determine relevance of sentences or ideas	45
13. Determine relevance of sentences or ideas	41
14. Ordering sentences	65
15. Choosing appropriate language for a given purpose	74

Form C	Percent Correct
1. Punctuation	89
2. Word usage	84
3. Punctuation	83
4. Word usage	75
5. Distinguishing between sentences and fragments or run-ons	66
6. Distinguishing between sentences and fragments or run-ons	66
7. Rewriting sentences	58
8. Rewriting sentences	58
9. Rewriting sentences	39
10. Combining sentences	75
11. Combining sentences	37
12. Choosing appropriate sentence to introduce or develop a paragraph	71
13. Ordering sentences	77
14. Ordering sentences	51
15. Choosing appropriate language for a given purpose	63

MATHEMATICS

Form A	Concept Name	Problem Type	Percent Correct
1.	Subtraction with common fraction notation, equal denominators(like fractions)	X	72
2.	Multi-digits used in addition with renaming	X	90
3.	English units for yards or less	X	55
4.	Division - known factor (divisor), less than ten, product (dividend) not renamed; no remainder	X	85
5.	Expanded notation for whole numbers	Y	93
6.	Factors and primes	Y	57
7.	Time	Z	49
8.	Multi-digits used in subtraction with renaming	Z	76
9.	Ordering non-negative rational numbers: greater than; less than; equal to; not equal to; between	Y	43
10.	Related lines; intersecting, parallel, skew, oblique	Y	79
11.	Estimation	Y	57
12.	Least common multiple	X	50
13.	Metric units for meters or less	X	30
14.	Subtraction with decimal fraction notation	X	83
15.	Ordering whole numbers as greater than, less than, equal to or not equal to and between; and objects as fewer than or more than	Y	78
16.	Place value - three or more digits	Y	84
17.	Circles	Y	40
18.	Liquids in metric units	Y	21
19.	Division - known factor (divisor), less than ten, product (dividend) not renamed; no remainder	X	79
20.	Frequency tables, charts, graphs (bar, line, circle, dot, picture, etc.)	Z	50

Form B	Concept Name	Problem Type	Percent Correct
1.	Multiplication with common fraction notation	X	63
2.	Perimeter or circumference of simple closed curves	Z	92
3.	Mathematical sentences (equations)	X	73
4.	Odd and even numbers	Y	72
5.	Operations related to denominate numbers (feet/inches)	Z	26
6.	Multi-digits used in addition with renaming	X	85
7.	Division by multiples of ten	X	69
8.	Rounding numbers	Y	90
9.	Subtraction with common fraction notation, unequal denominators (unlike fractions)	X	22
10.	Liquids in English and nonstandard units	Y	37

Form B	Concept Name	Problem Type	Percent Correct
11.	Square units of measure in English and non-standard units	X	15
12.	Greatest common factor	Y	66
13.	Reasoning	Z	76
14.	Multi-digits used in multiplication with renaming	X	91
15.	Equivalent common fraction notation	Y	61
16.	Quadrilaterals	Y	85
17.	Ratio	Y	79
18.	Liquids in metric units	Y	80
19.	Division by ten or greater numbers	Z	44
20.	Addition with common fraction notation, equal denominators(like fractions)	Z	50

Form C	Concept Name	Problem Type	Percent Correct
1.	Circles	Y	45
2.	Multi-digits used in subtraction with renaming	X	84
3.	Metric units for meters or less	Y	52
4.	Weight in English and nonstandard units	X	36
5.	Proportion (including rate pairs)	Z	86
6.	Multiples of ten as a factor	X	93
7.	Subtraction with decimal fraction notation	X	85
8.	Equations - linear in one variable	X	36
9.	Division - known factor (divisor), less than ten, product (dividend) not renamed; no remainder	Z	67
10.	Area of plane figures	Z	27
11.	Division - known factor (divisor), less than ten, product (dividend) not renamed; no remainder	Z	69
12.	Multiplication with common fraction notation	X	69
13.	Estimation	Y	53
14.	Weight in metric units	Y	35
15.	Whole numbers as related to set of non-negative rationals (fractional numbers)	Y	41
16.	Time; operations related to denominate numbers	Y	69
17.	Multiples	X	74
18.	Other names for a number	X	83
19.	Addition with common fraction notation, unequal denominators (unlike fractions)	X	17
20.	Line segments	Y	55

X = Computation
Y = Concepts
Z = Problem solving

INTEREST IN SCHOOL AND LEARNING

Form A

HOW DO YOU FEEL:	Very Happy	A Little Happy	A Little Unhappy	Very Unhappy
1. When you think about your schoolwork?	16*	47	25	12
2. When you think about how much your teacher cares about your class?	60*	30	7	3
3. About having to remember so many things at school?	12*	34	37	17
4. When you practice your writing in school?	30*	39	19	11
5. When you talk to your teacher?	46*	42	8	3
6. About talking with a friend about the things you have learned in school?	46*	39	9	5
7. When you learn social studies in school?	32*	35	17	15
8. When you think about your classroom in school?	33*	47	14	6
9. About studying something with a friend?	65*	26	5	3

Form B

HOW DO YOU FEEL:				
1. About learning something by reading a book?	45*	46	6	2
2. On days when you can't go to school?	35	24	26	14*
3. When you learn to read in school?	64*	30	4	2
4. When you study for a test?	20*	39	28	13
5. When you think about how much the principal cares about the children?	51*	33	9	7
6. When you write stories in school?	36*	40	15	8
7. When you are given a book for a birthday present?	49*	34	10	6
8. About asking your teacher for help?	30*	42	22	6
9. About learning new things at home about science?	53*	32	8	7

Form C

HOW DO YOU FEEL:	Very Happy	A Little Happy	A Little Unhappy	Very Unhappy
1. When you learn arithmetic in school?	42*	45	9	4
2. When you think about how fairly the children are treated in your school?	30*	35	23	12
3. When you play games that make you think?	57*	34	6	2
4. About reading a book by yourself?	57*	30	8	5
5. When you come back to school after a vacation?	23*	24	23	29
6. When you learn about science in school?	38*	40	14	8
7. When you have homework to do?	7*	26	35	32
8. On days when you are in school?	22*	50	19	9
9. When you learn new things in school?	61*	33	4	2

SOCIETAL RESPONSIBILITY

Form A		Yes	Maybe	No
1.	If I saw some kids starting fires in an alley, I would report it.	81*	15	4
2.	I would help someone even if I thought my friends would make fun of me.	61*	32	7
3.	I would "fool around" on days when my regular teacher is not in class.	8	21	71*
4.	If I accidentally broke a school window and no one saw me do it, I would keep quiet about it.	21	31	48*
5.	If someone wanted to borrow a book I was using, I would let the person have it as soon as I could.	68*	23	8
6.	If I knew I wouldn't get caught, I would throw snowballs at a passing car.	9	14	77*
7.	I would sell something if my class were trying to raise money.	64*	26	10
8.	If everyone else was breaking a school rule, I would also break it.	6	19	75*
9.	If I found a school bag with no name on it, I would keep it.	5	12	83*

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Form B				
1.	I would cheat on a test if I felt the test was unfair.	6	18	76*
2.	If I was "fooling around" with the school's record player and broke it, I would tell the teacher.	65*	25	10
3.	If a friend of mine took something that didn't belong to him/her, I would try to get him/her to return it.	79*	15	6
4.	I would keep something I found rather than try to find the owner.	14	32	53*
5.	I would help with a class project even if I did not like it.	55*	34	11
6.	If I saw someone being "picked on" by other kids, I would try to help that person.	59*	32	8
7.	If I really needed it, I would sneak a book out of the library.	5	10	85*
8.	I would make fun of someone who played a game poorly.	5	19	75*
9.	If I scratched a neighbor's car with a bicycle, I would keep quiet about it.	22	31	46*

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Form C		Yes	Maybe	No
1.	I would yell and scream in the lunchroom if everyone else was doing it.	7	23	70*
2.	If people didn't give me candy at Halloween, I would turn over their garbage cans.	9	13	78*
3.	If I found a wallet with money in it, I would try to return it to the owner.	70*	18	11
4.	If I saw someone steal something in a store, I would report it to the manager.	81*	14	5
5.	If someone left some trash on the lunch table, I would clean it off.	32*	43	25
6.	If a store clerk gave me too much change, I would return the extra money.	60*	22	18
7.	I would make fun of someone I didn't like.	12	36	52*
8.	I would cheat in a game if I thought I could get away with it.	7	16	76*
9.	If someone in my class wore odd clothes, I would tease the person about it.	6	19	75*

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KNOWLEDGE OF LAW/GOVERNMENT

Form A	Percent Correct
1. Location of capital of Pennsylvania	79
2. Legal voting age	60
3. Bill of Rights	47
4. Main job of Congress	46
5. Purpose of United Nations	42
6. Purpose of governments	46
7. Executive branch of government	32

Form B	Percent Correct
1. Meaning of law enforcement	63
2. Election of senators and representatives	68
3. Meaning of conflict	63
4. Vice-President of United States	36
5. Process of changing a law	56
6. Identification of law enforcement officials	35
7. Purpose of the Constitution	31

Form C	Percent Correct
1. Location of U. S. Capitol	76
2. Purpose of United Nations	62
3. Governor of Pennsylvania	80
4. Democratic processes	55
5. Meaning of conflict	52
6. Judicial branch of government	40
7. Distinguishing local laws from state or federal laws	46

KNOWLEDGE OF HEALTH/SAFETY

Form A	Percent Correct
1. Dangers of taking too much medicine	78
2. Dental hygiene practices	33
3. Bicycle safety rules	56
4. Good health practices for prevention of colds	45
5. Causes of heart disease	75
6. Dangers of throwing objects onto a basketball court	74
7. Proper care for person with broken arm	85
8. Effects of drinking alcohol	35
9. Effects of heavy smoking	65
10. Proper nutrition practices	76
11. Effects of drugs and alcohol	56
12. Names of protein foods	38
13. Dangers of air pollution	62
14. Proper action given specific symptoms	39
15. Swimming safety rules	45

Form B	Percent Correct
1. Dangers of daily use of tooth whitener	70
2. Dangers of playing with matches	91
3. Benefits of exercise	84
4. Dangers involving electricity	88
5. Effects of caffeine	56
6. First aid for a small scratch	75
7. Effects of smoking	90
8. Ways to prevent the spread of germs	78
9. Ways to prevent the spread of germs	63
10. Good eye care practices	80
11. Identification of poisonous liquids	74
12. Proper source of vitamins	64
13. Proper use of medicines	56
14. Balanced diet	43
15. Safety rule for crossing road after leaving school bus	46

Form C	Percent Correct
1. Pool safety rules	92
2. Effects of overeating	49
3. Effects of alcohol on driving	85
4. Benefits of exercise	55
5. Safe keeping of medicines	55
6. Causes of lung cancer	88
7. Value of using dental floss	65
8. Value of regular medical check-ups	80
9. Value of eating right	88
10. Action taken when alone with small child in case of fire	77
11. Rules for carrying sharply-pointed objects	78
12. First aid for a small burn	75
13. Vaccination for measles	43
14. Safety rules for walking on roads without sidewalks	37
15. Prevention of tooth decay	87

CREATIVE ACTIVITIES

During the last three years, how many times have you done the following?

A = Have not done the activity.

B = Have done the activity once.

C = Have done the activity 2 or 3 times.

D = Have done the activity about 5 times.

E = Have done the activity about 8 times (or more).

45

Form A

		A	B	C	D	E
1.	Written an interesting letter to a friend or relative?	17	15	26	13	28*
2.	Written how you felt about a book, a movie or a TV program?	51	16	17	6	9*
3.	Made something used in science, such as a magnet, telescope or thermometer?	45	20	18	7	9*
4.	Done a math problem in a way different from the usual way?	18	19	23	12	28*
5.	Designed and carried out a science experiment with plants or animals?	48	21	18	6	7*
6.	Written about something that really happened to you or someone else?	25	24	25	11	14*
7.	Using your own ideas, decorated an inside area, such as a stage, a gymnasium or a room?	35	20	20	9	14*
8.	Painted a picture showing something you had seen?	25	21	24	12	19*
9.	Cut up or put together paper or cardboard to make something?	15	19	26	14	26*
10.	Played a musical instrument in front of a group of people?	46	16	15	9	14*
11.	Thought up your own dance?	44	16	14	9	17*
12.	Made up the tune for a song?	41	19	16	8	16*

Form B

		A	B	C	D	E
1.	Using your own ideas, done a science experiment with chemicals, machines or electricity?	51	19	18	6	7*
2.	Kept track of something in nature, such as habits of birds or changes in the weather?	43	24	19	6	8*
3.	Made up your own crossword puzzle?	30	22	24	10	13*
4.	Written a new ending for a story you had read?	35	20	22	11	12*
5.	Written a make-believe story, such as a mystery, a fairy tale or an adventure?	17	18	25	14	26*
6.	Made signs or posters?	11	16	27	17	27*
7.	Made a drawing or a sketch?	7	10	15	11	54*
8.	Made an art object out of cloth, yarn, string or rug?	19	22	26	14	18*
9.	Put on your own show using puppets, animals or magic?	37	25	21	8	10*
10.	Sung in front of a group of people?	29	19	21	13	18*
11.	Acted in a skit or play?	17	22	30	15	16*
12.	Written a letter to a government or business leader?	67	18	8	3	4*

Form C

		A	B	C	D	E
1.	Built a machine or electrical device?	71	13	9	3	4*
2.	Made a display or report showing how something in nature looked or worked, such as the solar system or the water cycle?	40	30	20	5	4*
3.	Made a display or booklet showing something you had collected in nature, such as rocks or insects?	39	27	20	7	6*
4.	Written your own poem?	20	20	25	13	20*
5.	Written words for a song?	58	19	12	5	7*
6.	Shaped or carved something from a material like clay, soap, or wax?	21	24	27	12	16*
7.	Worked with wood or metal to make something useful or pretty?	33	23	21	9	13*
8.	Performed a dance for a group of people?	50	18	15	7	10*
9.	Given a speech?	44	25	17	7	8*
10.	Made a social studies project such as a map of a country or a display showing how the colonists lived?	26	30	25	9	9*
11.	Made up a plan for solving a problem of your community or school?	66	16	9	4	4*
12.	Written a social studies report telling how you felt about something, such as voting or cleaning up our rivers?	56	22	12	5	5*

ATTITUDE TOWARD CREATIVE ACTIVITIES

In the future, how much time would you like to spend doing the activity?

N = **No** time.
VL = **Very little** time.
S = **Some** time.
AL = **A lot** of time.

Form A		N	VL	S	AL
1.	Written an interesting letter to a friend or relative?	10	15	44	30*
2.	Written how you felt about a book, a movie or a TV program?	36	23	26	13*
3.	Made something used in science, such as a magnet, telescope or thermometer?	23	19	30	25*
4.	Done a math problem in a way different from the usual way?	21	24	31	22*
5.	Designed and carried out a science experiment with plants or animals?	26	19	29	26*
6.	Written about something that really happened to you or someone else?	20	24	35	19*
7.	Using your own ideas, decorated an inside area, such as a stage, a gymnasium or a room?	18	17	30	33*
8.	Painted a picture showing something you had seen?	17	20	34	27*
9.	Cut up or put together paper or cardboard to make something?	12	21	36	29*
10.	Played a musical instrument in front of a group of people?	33	16	24	26*
11.	Thought up your own dance?	37	16	22	24*
12.	Made up the tune for a song?	30	20	26	23*

Form B		N	VL	S	AL
1.	Using your own ideas, done a science experiment with chemicals, machines or electricity?	22	16	34	27*
2.	Kept track of something in nature, such as habits of birds or changes in the weather?	23	21	33	22*
3.	Made up your own crossword puzzle?	21	22	32	21*
4.	Written a new ending for a story you had read?	29	25	29	16*
5.	Written a make-believe story, such as a mystery, a fairy tale or an adventure?	14	18	32	33*
6.	Made signs or posters?	9	16	35	38*
7.	Made a drawing or a sketch?	7	11	26	53*
8.	Made an art object out of cloth, yarn, string or rug?	16	18	34	29*
9.	Put on your own show using puppets, animals or magic?	25	21	29	22*
10.	Sung in front of a group of people?	29	19	25	23*
11.	Acted in a skit or play?	15	18	33	32*
12.	Written a letter to a government or business leader?	41	22	23	13*

Form C		N	VL	S	AL
1.	Built a machine or electrical device?	33	14	29	24*
2.	Made a display or report showing how something in nature looked or worked, such as the solar system or the water cycle?	24	24	34	16*
3.	Made a display or booklet showing something you had collected in nature, such as rocks or insects?	21	20	34	23*
4.	Written your own poem?	22	22	31	23*
5.	Written words for a song?	34	19	24	21*
6.	Shaped or carved something from a material like clay, soap, or wax?	11	15	34	37*
7.	Worked with wood or metal to make something useful or pretty?	15	15	32	35*
8.	Performed a dance for a group of people?	41	16	20	21*
9.	Given a speech?	36	26	24	12*
10.	Made a social studies project such as a map of a country or a display showing how the colonists lived?	21	23	33	20*
11.	Made up a plan for solving a problem of your community or school?	36	24	25	14*
12.	Written a social studies report telling how you felt about something, such as voting or cleaning up our rivers?	32	24	28	15*

CAREER AWARENESS

Form A	Percent Correct
1. Job functions	50
2. Salary and pay	25
3. Working conditions	75
4. Job functions	61
5. Education and training	56
6. Abilities required	48
7. Job functions; working conditions	50
8. Salary and pay	82
9. Working conditions	65
10. Job functions; working conditions	36
11. Job functions	54
12. Job functions	66
13. Occupational clusters	81
14. Job functions	78

Form B	Percent Correct
1. Working conditions	50
2. Salary and pay	51
3. Job functions	82
4. Abilities required	73
5. Job functions	76
6. Education and training	40
7. Job functions	57
8. Working conditions	76
9. Education and training	56
10. Job functions	62
11. Job functions	51
12. Job functions	65
13. Education and training	44
14. Job functions	46

Form C	Percent Correct
1. Abilities required	19
2. Job functions	75
3. Job functions	42
4. Job functions	39
5. Abilities required	61
6. Salary and pay	77
7. Job functions; working conditions	81
8. Working conditions	42
9. Working conditions	46
10. Job functions	75
11. Abilities required	54
12. Abilities required	78
13. Job functions	48
14. Occupational clusters	84

APPRECIATION OF HUMAN ACCOMPLISHMENTS

Form A

WOULD YOU WANT TO:	Would want to	Might want to	Don't know	Don't think I'd want to	Would not want to
1. Own a set of books by famous writers?	46*	24	14	5	9
2. Hear artists, such as painters or sculptors, tell how they make works of art?	31*	22	17	12	18
3. Find out more about how a play is put on?	31*	23	18	12	15
4. Read books written by well-known American writers?	38*	25	18	8	11
5. Learn more about ways that countries use to get along with each other without fighting?	41*	21	17	9	12
6. Learn about the life of a famous scientist?	34*	22	18	10	15
7. Look at a display showing ways scientists have found to help people stay well?	41*	23	17	9	10
8. Learn more about the laws of our country?	38*	24	17	8	11
9. Look at works of art from other parts of the world?	43*	22	15	7	11
10. Find out more about what makes a movie great?	53*	21	13	5	7
11. Go to a courtroom trial?	36*	19	15	9	21
12. Learn about how the steps of a dance are put together?	29*	17	16	11	26
13. Visit a business or factory to learn more about it?	36*	25	18	9	12
14. Listen to a long piece of music, such as a symphony or an opera?	16*	15	16	14	39
15. Learn about how scientists help farmers grow better crops?	29*	21	21	12	15
16. Learn about how new scientific discoveries are made?	42*	22	17	8	10
17. Go to a meeting of the United States Senate?	43*	18	14	8	15
18. Learn more about how underwater plants are being made into new kinds of food?	38*	23	18	9	12
19. Go to a play that has a lot of songs in it?	26*	20	19	11	23

Form B

1. Read a science magazine?	30*	27	15	10	17
2. Learn more about how an author writes a book?	25*	22	17	14	22
3. Find out more about how someone gets elected to an office?	28*	21	18	14	19
4. Learn about how people in other countries live?	48*	23	13	7	9
5. Go to a meeting of the United Nations?	42*	16	15	9	19
6. Go to a museum to learn how people used to live?	64*	17	9	4	6
7. Visit a science museum?	58*	17	10	6	9
8. Learn more about new uses of atomic energy?	32*	21	18	11	18
9. See a famous dancer perform?	39*	16	14	9	22
10. Learn more about people who became well-known because of the music they wrote?	34*	21	18	10	17

WOULD YOU WANT TO:	Would want to	Might want to	Don't know	Don't think I'd want to	Would not want to
11. Visit a display showing how art is changing today?	33*	22	18	10	16
12. Learn about the life of a famous artist, such as a painter or sculptor?	31*	21	19	11	18
13. Go to a science fair?	48*	20	14	7	11
14. Visit a place where scientists are at work?	54*	18	12	6	10
15. See a movie that was made in another country?	37*	25	18	7	12
16. Listen to police officers or lawyers give a talk about their work?	26*	21	19	12	22
17. Hear a famous writer read from his or her books?	25*	21	21	12	21
18. Hear a composer tell how he or she writes music?	25*	20	19	12	24
19. Learn more about what it takes to become a good actor or actress?	46*	18	14	8	14

Form C

1. Learn more about how a good movie is made?	55*	22	11	6	7
2. Find out more about a group that was formed to help people in your town?	32*	28	20	10	10
3. Look at a display showing new ways energy from the sun is being used?	41*	22	17	10	10
4. Hear a world-famous scientist give a talk?	31*	21	17	13	18
5. See a world-famous play?	45*	22	14	7	11
6. Go to a concert to hear world-famous musicians play many kinds of music?	45*	22	15	7	10
7. Learn about how a poet writes a poem?	23*	21	20	14	21
8. Hear world-famous singers sing a number of kinds of music?	45*	22	16	7	9
9. Learn about your local government by talking to one of its leaders?	29*	21	19	12	19
10. Look at pictures painted by a famous artist?	40*	24	17	7	11
11. Listen to a group of scientists talk about their discoveries?	34*	22	18	10	16
12. Learn more about how laws are made by our government?	29*	22	20	12	16
13. Watch people do dances that are done in other parts of the world?	38*	21	16	10	15
14. Read stories written by persons from other parts of the world?	32*	26	21	9	12
15. Spend a day with a mayor to see what he or she does?	44*	21	15	8	11
16. Watch an artist make an art object or painting?	47*	22	15	7	9
17. Find out more about the things Black Americans have done for our country?	35*	25	20	8	11
18. Learn more about what scientists are doing to make sure we have enough energy for the future?	40*	22	18	8	11
19. Learn more about how scientists can tell what kind of weather we will have?	41*	23	17	8	12

KNOWLEDGE OF HUMAN ACCOMPLISHMENTS

Form A	Percent Correct
1. Science or medicine	66
2. Music or dance	66
3. Science or medicine	61
4. Writing, books or plays	67
5. Art	29
6. Music or dance	14
7. Government or politics	64
8. Art	73
9. Music or dance	74
10. Science or medicine	23
11. Writing, books or plays	55
12. Government or politics	21
13. Music or dance	18
14. Writing, books or plays	53
15. Government or politics	71

Form B	Percent Correct
1. Government or politics	26
2. Writing, books or plays	37
3. Music or dance	47
4. Government or politics	62
5. Writing, books or plays	64
6. Science or medicine	52
7. Music or dance	33
8. Art	50
9. Government or politics	19
10. Music or dance	75
11. Art	16
12. Writing, books or plays	18
13. Science or medicine	60
14. Music or dance	60
15. Science or medicine	61

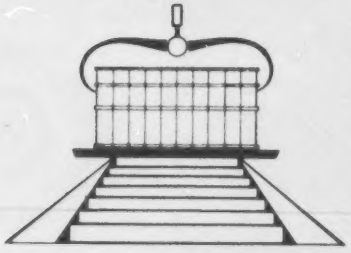
Form C	Percent Correct
1. Writing, books or plays	62
2. Art	48
3. Music or dance	20
4. Government or politics	82
5. Art	31
6. Music or dance	55
7. Science or medicine	49
8. Writing, books or plays	27
9. Government or politics	50
10. Music or dance	50
11. Writing, books or plays	14
12. Government or politics	90
13. Science or medicine	60
14. Music or dance	31
15. Science or medicine	49

INFORMATION USAGE

Form A	Percent Correct
1. Drawing inferences	53
2. Drawing inferences	51
3. Consequences and values	69
4. Drawing inferences	52
5. Information seeking	61
6. Consequences and values	52
7. Consequences and values	61
8. Information seeking	70
9. Information seeking	54
10. Information seeking	74
11. Consequences and values	66

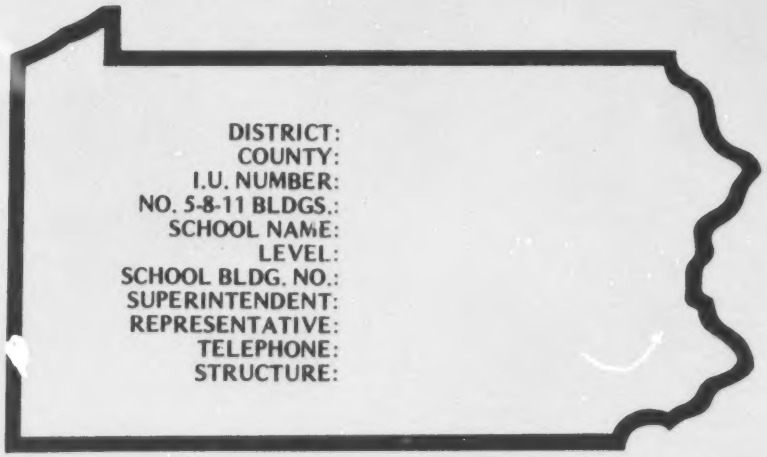
Form B	Percent Correct
1. Drawing inferences	51
2. Information seeking	65
3. Consequences and values	72
4. Drawing inferences	50
5. Information seeking	59
6. Consequences and values	71
7. Consequences and values	62
8. Drawing inferences	48
9. Information seeking	58
10. Information seeking	36
11. Consequences and values	57

Form C	Percent Correct
1. Drawing inferences	62
2. Information seeking	48
3. Consequences and values	68
4. Consequences and values	35
5. Consequences and values	66
6. Drawing inferences	67
7. Consequences and values	63
8. Information seeking	51
9. Information seeking	61
10. Drawing inferences	39
11. Information seeking	50



Educational Quality Assessment

School Report: A Status Profile



DISTRICT:
COUNTY:
I.U. NUMBER:
NO. 5-8-11 BLDGS.:
SCHOOL NAME:
LEVEL:
SCHOOL BLDG. NO.:
SUPERINTENDENT:
REPRESENTATIVE:
TELEPHONE:
STRUCTURE:

SAMPLE SCHOOL REPORT

These color pages duplicate portions of an authentic school report, and data represent an actual Pennsylvania school.

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Pennsylvania Department of Education 1983

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GENERAL SUMMARY OF STUDENT OUTCOMES

Percentile rank of this school in the state for this area

Estimated school mean based on student scores using matrix sampling procedure

Mean raw score range predicted for this school

Name of area measured

Number of students who were given scores for this area

AREA	NUMBER STUDENTS	SCHOOL SCORE	SCHOOL %ILE	PREDICTED SCORE RANGE
SELF-ESTEEM	85	61.02	30	57.92 - 63.33
UNDERSTANDING OTHERS	85	122.96	60	111.59 - 126.27
COMMUNICATION SKILLS: READING COMPREHENSION	88	29.69	60	25.25 - 30.43
COMMUNICATION SKILLS: WRITING SKILLS	89	28.42	30	27.41 - 31.31
MATHEMATICS	89	40.96	80	33.29 - 39.11
INTEREST IN SCHOOL AND LEARNING	87	53.48	30	51.60 - 57.10
SOCIETAL RESPONSIBILITY	87	42.24	40	41.75 - 46.03
KNOWLEDGE OF LAW/GOVERNMENT	86	12.24	70	10.05 - 12.41
HEALTH KNOWLEDGE	88	30.07	40	28.47 - 32.02
CREATIVE ACTIVITIES	87	49.62	30	45.21 - 55.58
CAREER AWARENESS	87	25.41	50	24.98 - 26.31
APPRECIATING HUMAN ACCOMPLISHMENTS	84	133.04	5	138.32 - 156.87
KNOWLEDGE OF HUMAN ACCOMPLISHMENTS	84	20.29	35	18.89 - 23.49
INFORMATION USAGE	87	19.52	50	17.17 - 20.73

Percentiles are rounded to the nearest 5th.

FOR COMPLETE INFORMATION, SEE MANUAL FOR INTERPRETING SCHOOL REPORTS, 1983;
HARRISBURG: PENNSYLVANIA DEPARTMENT OF EDUCATION.

PERCENTILE BANDS BY STUDENT OUTCOME AREA

CONFIDENCE INTERVALS

Distances based on z-scores (See Appendix C)

Sixty-six percent of the schools will in theory fall in the prediction band

PERCENTILES

AREA	1 1 2 5	2 3 4 5 6 7 8 0 0 0 0 0 0 0	9 0	9 5	9 8	9 9
SELF-ESTEEM		M XXXXXXXXAXXXXXX				
UNDERSTANDING OTHERS		M XXXXXXXXXXXXAXXXX				
COMMUNICATION SKILLS: READING COMPREHENSION		M XXXXXXXXAXXX				
COMMUNICATION SKILLS: WRITING SKILLS		M XXXAXXXXXXX				
MATHEMATICS		M XXXXXXXXXXX A				
INTEREST IN SCHOOL AND LEARNING		M XXXXXAXXXXXXXXXX				
SOCIETAL RESPONSIBILITY		M XXXAXXXXXXXXXXXXXX				
KNOWLEDGE OF LAW/GOVERNMENT		M XXXXXXXXXXXAX				
HEALTH KNOWLEDGE		M XXXXAXXXXXX				
CREATIVE ACTIVITIES		M XXXXXXXXAXXXXXXXXX				
CAREER AWARENESS		M XXXXXXXXAXXX				
APPRECIATING HUMAN ACCOMPLISHMENTS	A	M XXXXXXXXXXXXXXXXXX				
KNOWLEDGE OF HUMAN ACCOMPLISHMENTS		M XXXXAXXXXXXXX				
INFORMATION USAGE		M XXXXXXXXAXXXXX				

If an A would appear next to X band, check page 2 to determine if within range.

NOTE: AN "A" IN THE TABLE DESIGNATES THE LOCATION OF THE OBSERVED, ACTUAL SCHOOL VALUE.

"M" IS USED TO REPRESENT THE MEDIAN (50TH %ILE).

THE BAND OF X'S IS THE PREDICTION BAND (CONFIDENCE INTERVAL.)

CONDITION VARIABLE INFORMATION

Percentiles are rounded to the nearest 5th.

VARIABLE NAME	VAR. NO.	ACRONYM	SCORE	SCHOOL %ILE	NUMBER REPLYING
GRADE ENROLLMENT	1	GRENROLL	96.00	85	0
PERCENTAGE OF (TITLE I) LOW INCOME STUDENTS	2	PCTTILI	25.04	60	0
TUITION RATE	3	TUITION	1638.00	45	0
TEACHER LOCALE	4	TLOCALE	1.74	80	23
TEACHER SATISFACTION WITH RELATIONSHIPS WITH PARENTS	5	TSATPAR	2.13	30	23
TEACHER EDUCATION	6	TEDUC	1.35	10	23
TEACHER EXPERIENCE	7	TEXPER	11.96	20	23
CLASS SIZE	8	CLSIZE	26.91	90	23
TEACHER ESTIMATION OF READING INSTRUCTION TIME (GR. 5 ONLY)	9	READTIME	5.11	35	19
TEACHER ESTIMATION OF MATHEMATICS INSTRUCTION TIME (GR.5 ONLY)	10	MATHTIME	3.89	30	18
ACTIVITIES EXTERNAL TO THE CLASSROOM	11	EXTRACT	11.70	40	23
TEACHER/STUDENT/PARENT RELATIONSHIPS	12	TRELATE	16.48	15	23
FACTORS DISRUPTIVE TO CLASSROOM MANAGEMENT	13	DISRUPT	17.26	5	23
TEACHER INFLUENCE UPON CLASSROOM DECISIONS	14	INFLUENC	18.09	15	23
STAFF INTERPERSONAL RELATIONSHIPS	15	TSTAFF	6.00	5	23
DISCIPLINE PROBLEMS	16	DISCPROB	9.26	15	23

These were obtained from administrative records.

These were obtained from teacher questionnaire items. (See Appendix A)

These item replies can be compared to statewide item replies given on Table 6.

Number of teachers who responded to these items

5. TSATPAR (TEACHER SATISFACTION WITH RELATIONSHIPS WITH PARENTS)

	VERY SATISFIED	SOMEWHAT SATISFIED	SOMEWHAT DISSATISFIED	VERY DISSATISFIED
IN YOUR TEACHING SITUATION HOW SATISFIED ARE YOU WITH YOUR RELATIONSHIPS WITH PARENTS AND PARENT GROUPS?	30%	52%	17%	0%

11. EXTRACT (ACTIVITIES EXTERNAL TO THE CLASSROOM)

	NOT A PROBLEM	MODERATE PROBLEM	SERIOUS PROBLEM	CRITICAL PROBLEM
THERE ARE TOO FEW ACTIVITIES WHICH RECOGNIZE THE TALENT OF OUR STUDENTS.	52%	35%	9%	4%
THERE IS LITTLE EMPHASIS ON VOCATIONAL DEVELOPMENT.	65%	26%	4%	4%
THERE IS NO TIME OR PLACE FOR STUDENTS AND TEACHERS TO INTERACT OUTSIDE OF THE CLASSROOM.	26%	57%	13%	4%
NOT ENOUGH TEACHERS ARE INVOLVED IN HELPING STUDENTS OVERCOME PROBLEMS.	52%	43%	0%	4%
NOT ENOUGH TEACHERS ACTIVELY PARTICIPATE IN EXTRACURRICULAR ACTIVITIES.	48%	43%	4%	4%

12. TRELATE (TEACHER/STUDENT/PARENT RELATIONSHIPS)

THE STUDENTS IN THIS SCHOOL AREN'T REALLY INTERESTED IN LEARNING.	41%	55%	5%	0%
TOO MANY OF MY STUDENTS ARE INDIFFERENT TO SCHOOL.	48%	43%	9%	0%
THERE IS NOT ENOUGH PARENT-TEACHER INTERACTION.	4%	70%	22%	4%
TOO MANY PARENTS TAKE LITTLE OR NO INTEREST IN THEIR CHILDREN'S SCHOOL WORK.	0%	48%	52%	0%
THE QUALITY OF TEACHER-PARENT INTERACTION IS NOT GOOD.	18%	68%	9%	5%
WHEN A PROBLEM ARISES INVOLVING A COMMUNITY GROUP, THE TEACHERS HAVE LITTLE INPUT INTO THE SOLUTION.	9%	30%	48%	13%
THE PARENTS DO NOT SUPPORT WHAT THE SCHOOL DOES.	17%	43%	35%	4%
THE PARENTS DO NOT PLACE A HIGH VALUE ON EDUCATION.	13%	52%	35%	0%
STUDENTS IN THIS SCHOOL HAVE POOR STUDY HABITS.	4%	52%	43%	0%

13. DISRUPT (FACTORS DISRUPTIVE TO CLASSROOM MANAGEMENT)	NOT A PROBLEM	MODERATE PROBLEM	SERIOUS PROBLEM	CRITICAL PROBLEM
THE DIFFERENT RACES OR ETHNIC GROUPS DON'T GET ALONG WELL ENOUGH TOGETHER.	96%	0%	0%	4%
THE ACHIEVEMENT LEVELS OF MY STUDENTS ARE TOO HETEROGENEOUS.	26%	52%	13%	9%
HEALTH AND NUTRITION PROBLEMS SEEM TO AFFECT THE LEARNING OF MY STUDENTS.	39%	48%	13%	0%
THE EMPHASIS ON ATHLETICS IN THIS SCHOOL DISRUPTS CLASSROOM LEARNING.	39%	39%	9%	13%
THE COMPETITION FOR GRADES AT THIS SCHOOL PUTS TOO MUCH PRESSURE ON STUDENTS.	65%	26%	0%	9%
MY STUDENTS ARE CHRONICALLY ABSENT FROM SCHOOL.	52%	30%	17%	0%
THERE ARE TOO MANY OUTSIDE INTERRUPTIONS DURING CLASS PERIODS.	22%	39%	35%	4%
I HAVE TO SPEND TOO MUCH TIME ON NON-INSTRUCTIONAL DUTIES.	9%	48%	30%	13%

14. INFLUENC (TEACHER INFLUENCE UPON INSTRUCTIONAL DECISIONS)				
PHYSICAL FACILITIES OF THIS SCHOOL LIMIT THE KINDS OF PROGRAMS PROVIDED FOR STUDENTS.	30%	52%	17%	0%
I WORK WITH TOO MANY STUDENTS EACH DAY.	26%	52%	9%	13%
LACK OF FREEDOM TO TEACH THE WAY I WANT TO MAKES ME LESS EFFECTIVE WITH MY STUDENTS.	48%	35%	4%	13%
TEACHERS HAVE LITTLE CONTROL OVER MATTERS SUCH AS TEXTBOOK SELECTION, CURRICULUM AND INSTRUCTIONAL PROGRAMS.	35%	35%	26%	4%
WHEN NEW CURRICULUM PROGRAMS ARE INITIATED, I AM NOT CONSULTED OR TRAINED.	48%	35%	9%	9%
MY TEACHING IS LIMITED BY THE QUALITY OF OR LACK OF INSTRUCTIONAL EQUIPMENT AND MATERIALS.	57%	30%	9%	4%
HAVING TO TEACH SPECIAL EDUCATION STUDENTS IN REGULAR CLASSES IS A PROBLEM.	61%	26%	9%	4%
THERE IS TOO LITTLE TEACHER INPUT IN SOLVING ADMINISTRATIVE PROBLEMS.	9%	30%	43%	17%
IN-SERVICE EDUCATION PROVIDED BY THE DISTRICT DOES NOT MEET MY NEEDS.	17%	30%	39%	13%

15. TSTAFF (STAFF INTERPERSONAL RELATIONSHIPS)				
THE SUPPORT STAFF IN THIS SCHOOL IS NOT COOPERATIVE.	43%	35%	17%	4%
THE TEACHERS DON'T SEEM TO BE ABLE TO WORK WELL TOGETHER.	35%	43%	17%	4%
THERE IS LITTLE INTERACTION AMONG TEACHERS IN THIS SCHOOL, I.E., EVERYONE IS DOING HIS/HER OWN THING.	13%	57%	22%	9%

16. DISCPROB (DISCIPLINE PROBLEMS)				
TOO MUCH TIME IS SPENT ON DISCIPLINE PROBLEMS.	30%	57%	9%	4%
THE VALUES HELD BY THE STUDENTS ARE IN CONFLICT WITH THOSE OF THE SCHOOL.	30%	48%	22%	0%
TOO LITTLE SUPPORT ON DISCIPLINE IS PROVIDED BY ADMINISTRATORS.	26%	35%	17%	22%
TOO LITTLE SUPPORT ON DISCIPLINE IS GIVEN BY THE PARENTS.	13%	30%	35%	22%
DISRUPTION OF MY CLASS(ES) BY STUDENTS IS A CONTINUING FRUSTRATION.	39%	39%	9%	13%

Percentiles are rounded to the nearest 5th.

CONDITION VARIABLE INFORMATION

VARIABLE NAME	VAR. NO.	ACRONYM	SCORE	SCHOOL %ILE	NUMBER REPLYING
PARENTAL EDUCATION	17	PAREDUC	3.36	30	89
PARENTAL OCCUPATION	18	PAROCC	43.81	25	89
OCCUPATIONAL DESIRE (GR. 11 ONLY)	19	OCDESIRE	0.00	Not collected from	
OCCUPATIONAL EXPECTATION (GR. 11 ONLY)	20	OCEXPECT	0.00	Grade 5 students	
PERCENT GIRLS	21	PCTGIRLS	51.14	65	88
TYPE OF COMMUNITY	22	RESIDE	0.38	15	88
PERCENT WHITE STUDENTS	23	PCTWHITE	100.00	75	88
ACCESSIBILITY OF LIBRARY	24	LIBRARY	1.59	45	88
STABILITY OF STUDENT RESIDENCE (Collected from students)	25	STABLE	3.80	80	86
FAMILY SIZE	26	FAMSIZE	2.11	55	88
FAMILY ORDER	27	FAMORDER	1.24	60	89
STUDENT PERCEPTION OF PARENTAL INTEREST IN SCHOOL	28	SPARINT	6.19	40	83
AMOUNT OF HOMEWORK	29	HOMEWORK	1.99	55	86
STUDENT TIME SPENT WATCHING TELEVISION	30	TVWATCH	2.11	35	87
STUDENT PERCEPTION OF PARENTAL EXPECTATIONS (GR. 8 & 11 ONLY)	31	PAREXP	0.00	Not collected from	
STUDENT EDUCATIONAL EXPECTATIONS (GR. 8 & 11 ONLY)	32	EDEXPECT	0.00	Grade 5 students	
STUDENT PERCEPTION OF TEACHER EXPECTATIONS (GR. 8 & 11 ONLY)	33	STEACHEX	0.00		
READING MATERIAL IN THE HOME	34	HOMEREAD	10.82	55	87
HOME CLIMATE	35	HOMECLIM	24.32	15	84

These replies can be compared to statewide item replies given on Table 6.

****

28. SPARINT (STUDENT PERCEPTION OF PARENTAL INTEREST)

	ALMOST ALWAYS	USUALLY	SOMETIMES	ALMOST NEVER
MY PARENTS ENJOY HEARING ABOUT SCHOOL.	40%	35%	25%	0%
MY PARENTS FEEL THE SCHOOL IS DOING A GOOD JOB.	40%	34%	25%	1%
MY PARENTS SUPPORT WHAT THE SCHOOL DOES.	33%	34%	28%	6%

****

29. HOMEWORK (AMOUNT OF HOMEWORK)

FROM THE TIME YOU GET HOME FROM SCHOOL UNTIL YOU GO TO BED, HOW MUCH TIME DO YOU USUALLY SPEND ON HOMEWORK?

ABOUT THREE HOURS (OR MORE)	7%
ABOUT TWO HOURS	24%
ABOUT ONE HOUR	33%
LESS THAN ONE HOUR	33%
NONE	3%

****

****

30. TVWATCH (STUDENT TIME SPENT WATCHING TELEVISION)

FROM THE TIME YOU GET HOME FROM SCHOOL UNTIL YOU GO TO BED, HOW MUCH TIME DO YOU USUALLY SPEND WATCHING T.V.?

ABOUT FIVE HOURS (OR MORE)	18%
ABOUT FOUR HOURS	21%
ABOUT THREE HOURS	24%
ABOUT TWO HOURS	28%
ABOUT ONE HOUR (OR LESS)	9%

****

THE VARIABLES PAREXP (31), EDEXPECT (32) AND STEACHEX (33) ARE NOT COLLECTED AT GRADE 5

DISTRIBUTION OF STUDENT OUTCOMES BY SCORE CATEGORY WITHIN AREAS

SCORE	SELF-ESTEEM	PCT.
0-3	*	0
4-6	*	0
7-9	*X	1
10-12	*XXX	6
13-15	*XXXXXX	12
16-18	*XXXXXX	12
19-21	*XXXXXXXXXXXX	25
22-24	*XXXXXXXXXXXXXX	29
25-27	*XXXXXX	11
28-30	*X	2
31-33	*X	2

SCORE	UNDERSTANDING OTHERS	PCT.
0-4	*	0
5-8	*	0
9-12	*	0
13-16	*	0
17-20	*X	1
21-24	*XXX	6
25-28	*XXXXXX	12
29-32	*XXX	6
33-36	*XXXXXXXX	15
37-40	*XXXXXXX	13
41-44	*XXXX	7
45-48	*XXXX	7
49-52	*XXXX	7
53-56	*XXXXXXXXX	18
57-60	*XXXX	8

SCORE	READING COMPREHENSION	PCT.
0	*X	1
1	*X	1
2	*XX	3
3	*X	2
4	*X	2
5	*XX	3
6	*XXX	6
7	*XXXXX	9
8	*XXXX	7
9	*XXXX	7
10	*XXXX	8
11	*XXXX	8
12	*XXXXXXX	13
13	*XXXXXX	11
14	*XXX	6
15	*XXXXX	9
16	*XX	3

SCORE	WRITING	PCT.
0	*	0
1	*	0
2	*X	2
3	*	0
4	*XX	3
5	*XXXX	8
6	*XXXXX	10
7	*XXXX	8
8	*XX	4
9	*XXX	6
10	*XXXXXXX	13
11	*XXXXXX	12
12	*XXXXXXXX	15
13	*XXXXXX	12
14	*XX	3
15	*X	2

SCORE	HEALTH KNOWLEDGE	PCT.
0	*	0
1	*	0
2	*	0
3	*X	1
4	*XX	3
5	*XXXX	7
6	*X	1
7	*XXX	5
8	*XXXX	8
9	*XXXXXX	11
10	*XXXXXXXX	15
11	*XXXXXXXXX	17
12	*XXXXXX	11
13	*XXXXXXX	13
14	*XXXX	7
15	*X	1

SCORE	INTEREST IN SCHOOL/LRNG.	PCT.
0-3	*X	1
4-6	*	0
7-9	*X	2
10-12	*XXXX	8
13-15	*XXXXXXX	13
16-18	*XXXXXXXXXXXXXX	30
19-21	*XXXXXXXXXXX	25
22-24	*XXXXXXXXX	18
25-27	*X	2

SCORE	SOCIETAL RESPONSIBILITY	PCT.
0-3	*X	1
4-6	*XXX	5
7-9	*XXXX	8
10-12	*XXXXXXX	13
13-15	*XXXXXXXXXXXXXX	30
16-18	*XXXXXXXXXXXXXXXXXXXX	44

SCORE	KNOWLEDGE OF LAW / GOVT.	PCT.
0	*X	2
1	*XXX	5
2	*XXXXXXX	13
3	*XXXXXXXXXX	20
4	*XXXXXXXXXX	21
5	*XXXXXXX	14
6	*XXXXXXX	14
7	*XXXXXX	12

SCORE	MATHEMATICS	PCT.
0	*	0
1	*	0
2	*	0
3	*	0
4	*	0
5	*	0
6	*	0
7	*XX	3
8	*XX	4
9	*X	2
10	*XXXX	7
11	*XXXX	7
12	*XXXXXX	11
13	*XXXXXXXX	15
14	*XXXXX	9
15	*XXXX	7
16	*XXXXXXX	13
17	*XXXXXX	12
18	*XX	4
19	*XX	4
20	*	0

Represents 10 per cent Represents 40 per cent

Actual percentage of students who obtained scores in this range

DISTRIBUTION OF STUDENT OUTCOMES BY SCORE CATEGORY WITHIN AREAS

SCORE	CREATIVE ACTIVITIES (0----1----2----3----4----5-)	PCT.
0-3	*XX	3
4-6	*XXXX	8
7-9	*XXXXXXXX	15
10-12	*XXXXXXXX	15
13-15	*XXXX	7
16-18	*XXXXXXX	13
19-21	*XXXXXX	11
22-24	*XXXX	7
25-27	*XXXX	7
28-30	*XXX	6
31-33	*XXX	5
34-48	*XX	3

SCORE	CAREER AWARENESS (0----1----2----3----4----5-)	PCT.
0	*	0
1	*	0
2	*XX	3
3	*X	2
4	*XX	3
5	*XXX	5
6	*XXXX	8
7	*XXXXX	10
8	*XXXXXXXXX	17
9	*XXXXX	9
10	*XXXXXXX	16
11	*XXXXXXX	14
12	*XXXX	8
13	*X	2
14	*X	1

Actual percentage of students who obtained this score.

SCORE	APPRECIATING HUMAN ACCOM. (0----1----2----3----4----5-)	PCT.
0-4	*	0
5-8	*X	2
9-12	*X	2
13-16	*X	1
17-20	*X	2
21-24	*XXX	5
25-28	*XX	4
29-32	*XXX	5
33-36	*XXXXX	10
37-40	*XXXXXX	11
41-44	*XXXX	8
45-48	*XX	4
49-52	*XXXXXX	11
53-56	*XXXX	7
57-60	*XXXXXXX	13
61-64	*XXXX	7
65-76	*XXXX	8

SCORE	KNOWLEDGE HUMAN ACCOM. (0----1----2----3----4----5-)	PCT.
0	*	0
1	*XX	4
2	*XX	4
3	*XXX	5
4	*XXXXX	10
5	*XXXXXXX	13
6	*XXXXXXX	13
7	*XXXXXX	12
8	*XXXXXXX	14
9	*XXX	6
10	*XXXX	8
11	*XXXX	8
12	*XX	4
13	*	0
14	*	0
15	*	0

SCORE	INFORMATION USAGE (0----1----2----3----4----5-)	PCT.
0	*	0
1	*X	1
2	*XXX	6
3	*XXXXXX	11
4	*XXXX	8
5	*XXXX	8
6	*XXXXXX	11
7	*XXXXXXX	14
8	*XXXXXX	11
9	*XXXXXXXXX	17
10	*XXXX	8
11	*XX	3

← Indicates percentage of students scoring 61 to 64 percent on their form in this area

← Indicates the percentage of students given a score of zero, i.e., had no items correct

← Indicates the percentage of students given a score of fifteen, i.e., had all items correct

For example for self-esteem:
One third = 4 items out of 11 in a favorable way
More than one half = 6 items out of 11 in a favorable way
Two thirds = 8 items out of 11 in a favorable way

SUMMARY OF CRITERION-REFERENCED INFORMATION

PERCENTAGE OF STUDENTS SHOWING POSITIVE ATTITUDES OR DEMONSTRATING KNOWLEDGE AT THREE CRITERION LEVELS

	ONE THIRD		ONE HALF		TWO THIRDS			ONE THIRD		ONE HALF		TWO THIRDS	
	STATE	LOCAL	STATE	LOCAL	STATE	LOCAL		STATE	LOCAL	STATE	LOCAL	STATE	LOCAL
SELF-ESTEEM	95	94	80	78	51	51	KNOWLEDGE OF LAW / GOVT	75	80	54	60	34	40
UNDERSTANDING OTHERS	89	87	61	59	31	39	HEALTH KNOWLEDGE	95	95	81	83	62	64
READING COMPREHENSION	80	86	58	65	42	50	CREATIVE ACTIVITIES	94	93	68	56	54	48
WRITING	94	94	77	69	58	58	CAREER AWARENESS	90	91	65	68	36	41
MATHEMATICS	94	100	72	83	41	51	APPRECIATING HUMAN ACCO	85	74	62	48	38	35
INTEREST IN SCHOOL/LRNG	98	98	89	86	77	76	KNOWLEDGE HUMAN ACCOM.	80	79	47	40	24	20
SOCIETAL RESPONSIBILITY	93	86	76	75	64	67	INFORMATION USAGE	82	82	62	66	39	40

ITEM FREQUENCY ANALYSIS FOR SELF-ESTEEM

FORM	ITEM	OMIT	PERCENT RESPONSE BY OPTION 1	2	3	4
A						
	1	3	28*	52	10	7
	2	3	17	34	28	17*
	3	0	10*	52	28	10
	4	0	31	34	24	10*
	5	0	28*	52	14	7
	6	0	0	24	28	48*
	7	0	14	24	34	28*
	8	0	55*	38	3	3
	9	3	10*	48	21	17
	10	7	3	10	52	28*
	11	0	10	10	45	34*
B						
	1	0	44*	41	7	7
	2	4	11	26	41	19*
	3	4	11	11	26	48*
	4	0	22*	52	11	15
	5	0	11	22	30	37*
	6	0	4	26	22	48*
	7	0	4*	41	30	26
	8	0	19	33	26	22*
	9	0	44*	44	4	7
	10	0	4*	33	26	37
	11	0	15	7	19	59*
C						
	1	0	10*	14	34	41
	2	0	7	34	28	31*
	3	0	55*	38	3	3
	4	0	21	14	24	41*
	5	0	3	10	34	52*
	6	0	34*	45	21	0
	7	0	14	38	31	17*
	8	0	24*	10	21	45
	9	0	17	24	14	45*
	10	0	66*	14	14	7
	11	0	21	10	24	45*

NUMBER OF STUDENTS REPLYING: FORM A (N= 29) FORM B (N= 27) FORM C (N= 29)

SCHOOL TOTAL SCALE RELIABILITY ESTIMATE= 0.82 PERCENTAGE OF OMITS= 0.7%

THE '*' REPRESENTS THE CORRECT RESPONSE (FOR A COGNITIVE SCALE), OR THE MOST FAVORABLE RESPONSE (FOR AN ATTITUDINAL SCALE).

(This page is a sample of the noncognitive area item response data pages and the following pages for mathematics and information usage are samples of the cognitive area pages. Pages 11-13 and 15-23 have been deleted to conserve space.)

ITEM FREQUENCY ANALYSIS FOR MATHEMATICS

FORM	ITEM	PERCENT RESPONSE BY OPTION OMIT	1	2	3	4
A						
	1	0	0	100*	0	0
	2	0	10	0	90*	0
	3	0	3	13	17	67*
	4	0	0	0	0	100*
	5	0	0	0	0	100*
	6	0	20	73*	7	0
	7	0	50	40*	7	3
	8	0	10	10	70*	10
	9	0	13	17	60*	10
	10	0	100*	0	0	0
	11	0	40*	7	33	20
	12	0	73*	10	7	10
	13	0	13	33	13	40*
	14	0	83*	17	0	0
	15	0	3	10	70*	17
	16	0	10	90*	0	0
	17	0	3	50*	37	10
	18	0	43	20	3*	33
	19	0	3	73*	0	23
	20	0	0	70*	30	0
B						
	1	0	0	3	7	90*
	2	0	0	0	0	100*
	3	0	3	3	21	72*
	4	0	62*	14	21	3
	5	0	41	21	34*	3
	6	0	97*	0	3	0
	7	7	7	83*	0	3
	8	0	0	0	97*	3
	9	0	3	52	41*	3
	10	3	45*	3	31	17
	11	7	14	14	55	10*
	12	3	10	76*	7	3
	13	3	79*	14	3	0
	14	3	97*	0	0	0
	15	7	90*	0	3	0
	16	3	7	0	3	86*
	17	3	90*	0	3	3
	18	3	72*	7	7	10
	19	3	34	3	34*	24
	20	3	7	3	28	59*

FORM	ITEM	PERCENT RESPONSE BY OPTION OMIT	1	2	3	4
C						
	1	3	20	17	7	53*
	2	0	3	90*	3	3
	3	0	23	57*	3	17
	4	3	20	7	40*	30
	5	0	73*	3	0	23
	6	0	3	3	93*	0
	7	0	0	0	0	100*
	8	3	3	53	33*	7
	9	0	73*	10	10	7
	10	0	50	40	0	10*
	11	0	10	3	3	83*
	12	0	93*	0	3	3
	13	3	20	10	10	57*
	14	0	20	23*	30	27
	15	0	7	17	50*	27
	16	3	70*	23	0	3
	17	0	7	3	0	90*
	18	0	3	0	97*	0
	19	0	53	23	20*	3
	20	0	13	83*	3	0

NUMBER OF STUDENTS REPLYING: FORM A (N= 30) FORM B (N= 29) FORM C (N= 30)
SCHOOL TOTAL SCALE RELIABILITY ESTIMATE= 0.88 PERCENTAGE OF OMITS= 1.1%
THE '*' REPRESENTS THE CORRECT RESPONSE (FOR A COGNITIVE SCALE), OR THE MOST FAVORABLE RESPONSE (FOR AN ATTITUDINAL SCALE).

ITEM FREQUENCY ANALYSIS FOR INFORMATION USAGE

FORM	ITEM	OMIT	PERCENT RESPONSE BY OPTION 1	2	3	4
A						
	1	0	13	20	57*	10
	2	0	17	33	10	40*
	3	0	7	17	60*	17
	4	0	27	17	43*	13
	5	0	20	10	63*	7
	6	0	3	60*	7	30
	7	0	60*	7	23	10
	8	0	10	17	7	67*
	9	3	3	23	47*	23
	10	0	10	73*	10	7
	11	0	67*	23	3	7
B						
	1	0	21	18	50*	11
	2	0	11	75*	7	7
	3	0	4	79*	4	14
	4	0	4	75*	4	18
	5	0	18	11	11	61*
	6	0	14	4	0	82*
	7	0	46*	29	21	4
	8	0	25	18	0	57*
	9	0	7	14	61*	18
	10	0	14	11	50	25*
	11	0	14	68*	11	7
C						
	1	0	10	72*	14	3
	2	0	14	17	28	41*
	3	0	7	69*	10	14
	4	0	31*	10	3	55
	5	0	21	66*	7	7
	6	0	79*	7	3	10
	7	0	14	62*	14	10
	8	0	28	17	14	41*
	9	0	7	72*	3	17
	10	0	24	45*	7	24
	11	0	17	14	59*	10

NUMBER OF STUDENTS REPLYING: FORM A (N= 30) FORM B (N= 28) FORM C (N= 29)

SCHOOL TOTAL SCALE RELIABILITY ESTIMATE= 0.87 PERCENTAGE OF OMITS= 0.1%

THE '*' REPRESENTS THE CORRECT RESPONSE (FOR A COGNITIVE SCALE), OR THE MOST FAVORABLE RESPONSE (FOR AN ATTITUDINAL SCALE).

APPENDICES

APPENDIX A

PENNSYLVANIA DEPARTMENT OF EDUCATION
EDUCATIONAL QUALITY ASSESSMENT
TEACHER QUESTIONNAIRE

School Name _____ District Name _____

INSTRUCTIONS: Information received will be aggregated and reported in terms of relationships to student achievement. No individuals can be identified, thus no individual information will be reported. Please respond to the items by blackening the circles. USE A NO. 2 PENCIL ONLY.

1. Are you a classroom teacher (i.e. spend more than 50% of your school time in classroom instruction)?
   - Ⓐ Yes
   - Ⓑ No

2. Where did you graduate from high school? 4 TLOCALE
   - Ⓐ In or within 30 miles of the boundaries of this school district
   - Ⓑ More than 30 miles but less than 100 miles from the present boundaries of this school district
   - Ⓒ One hundred miles or more from the boundaries of this school district

3. In your teaching situation, how satisfied are you with your relationships with parents and parent groups? 5 TSATPAR
   - Ⓐ Very Satisfied
   - Ⓑ Somewhat Satisfied
   - Ⓒ Somewhat Dissatisfied
   - Ⓓ Very Dissatisfied

4. Which of the following best describes your level of formal education? 6 TEDUC
   - Ⓐ No degree
   - Ⓑ Bachelor's degree
   - Ⓒ Master's degree or equivalency
   - Ⓓ Master's degree plus one year
   - Ⓔ Doctor's degree

		ELEMENTARY TEACHERS ONLY	
5. Including this year, how many years of teaching experience do you have? 7 TEXPER	6. What is your average **class** size? (Exclude supervisory duties such as study hall.) 8 CLSIZE	7. During the typical school **week**, about how many hours does your average student spend in direct instruction of reading skills?* 9 READTIME	8. During the typical school **week**, about how many hours does your average student spend in formal math instruction?* 10 MATHTIME
00 11 22 33 44 55 6 7 8 9	00 11 22 33 44 55 6 7 8 9	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9

*If you are not involved in these areas, please leave blank.

INSTRUCTIONS: Each of the following items is a problem for some teachers in some schools. Check the degree to which each one is a problem to you in your current assignment by using these definitions: Not a problem—has little or no effect on student performance; Moderate problem—has only limited effect on student performance; Serious problem—has considerable effect on student performance; Critical problem—has crucial effect on student performance.

A = Not a Problem
B = Moderate Problem
C = Serious Problem
D = Critical Problem

		VARIABLE*
1.	The students in this school aren't really interested in learning	Ⓐ Ⓑ Ⓒ Ⓓ 12
2.	Too many of my students are indifferent to school	Ⓐ Ⓑ Ⓒ Ⓓ 12
3.	There are too few activities which recognize the talent of our students	Ⓐ Ⓑ Ⓒ Ⓓ 11
4.	The different races or ethnic groups don't get along well together	Ⓐ Ⓑ Ⓒ Ⓓ 13
5.	There is little emphasis on vocational development	Ⓐ Ⓑ Ⓒ Ⓓ 11
6.	There is no time or place for students and teachers to interact outside of the classroom	Ⓐ Ⓑ Ⓒ Ⓓ 11
7.	Not enough teachers are involved in helping students overcome problems	Ⓐ Ⓑ Ⓒ Ⓓ 11
8.	Not enough teachers actively participate in extracurricular activities	Ⓐ Ⓑ Ⓒ Ⓓ 11
9.	There is not enough parent-teacher interaction	Ⓐ Ⓑ Ⓒ Ⓓ 12
10.	Too many parents take little or no interest in their children's school work	Ⓐ Ⓑ Ⓒ Ⓓ 12
11.	The quality of teacher-parent interaction is not good	Ⓐ Ⓑ Ⓒ Ⓓ 12
12.	When a problem arises involving a community group, the teachers have little input into the solution	Ⓐ Ⓑ Ⓒ Ⓓ 12
13.	The parents do not support what the school does	Ⓐ Ⓑ Ⓒ Ⓓ 12
14.	The parents do not place a high value on education	Ⓐ Ⓑ Ⓒ Ⓓ 12
15.	Students in this school have poor study habits	Ⓐ Ⓑ Ⓒ Ⓓ 12
16.	The achievement levels of my students are too heterogeneous	Ⓐ Ⓑ Ⓒ Ⓓ 13
17.	Health and nutrition problems seem to affect the learning of my students	Ⓐ Ⓑ Ⓒ Ⓓ 13
18.	The emphasis on athletics in this school disrupts classroom learning	Ⓐ Ⓑ Ⓒ Ⓓ 13
19.	The competition for grades at this school puts too much pressure on students	Ⓐ Ⓑ Ⓒ Ⓓ 13
20.	My students are chronically absent from school	Ⓐ Ⓑ Ⓒ Ⓓ 13
21.	Physical facilities of this school limit the kinds of programs provided for students	Ⓐ Ⓑ Ⓒ Ⓓ 14
22.	I work with too many students each day	Ⓐ Ⓑ Ⓒ Ⓓ 14
23.	Lack of freedom to teach the way I want to makes me less effective with my students	Ⓐ Ⓑ Ⓒ Ⓓ 14
24.	Teachers have little control over matters such as textbook selection, curriculum and instructional programs	Ⓐ Ⓑ Ⓒ Ⓓ 14
25.	When new curriculum programs are initiated, I am not consulted or trained	Ⓐ Ⓑ Ⓒ Ⓓ 14
26.	There are too many outside interruptions during class periods	Ⓐ Ⓑ Ⓒ Ⓓ 13
27.	I have to spend too much time on non-instructional duties	Ⓐ Ⓑ Ⓒ Ⓓ 13
28.	My teaching is limited by the quality of or lack of instructional equipment and materials	Ⓐ Ⓑ Ⓒ Ⓓ 14
29.	Having to teach special education students in regular classes is a problem	Ⓐ Ⓑ Ⓒ Ⓓ 14
30.	The support staff in this school is not cooperative	Ⓐ Ⓑ Ⓒ Ⓓ 15
31.	The teachers don't seem to be able to work well together	Ⓐ Ⓑ Ⓒ Ⓓ 15
32.	There is too little teacher input in solving administrative problems	Ⓐ Ⓑ Ⓒ Ⓓ 14
33.	There is little interaction among teachers in this school, i.e. everyone is doing his/her own thing	Ⓐ Ⓑ Ⓒ Ⓓ 15
34.	In-service education provided by the district does not meet my needs	Ⓐ Ⓑ Ⓒ Ⓓ 14
35.	Too much time is spent on discipline problems	Ⓐ Ⓑ Ⓒ Ⓓ 16
36.	The values held by the students are in conflict with those of the school	Ⓐ Ⓑ Ⓒ Ⓓ 16
37.	Too little support on discipline is provided by administrators	Ⓐ Ⓑ Ⓒ Ⓓ 16
38.	Too little support on discipline is given by the parents	Ⓐ Ⓑ Ⓒ Ⓓ 16
39.	Disruption of my class(es) by students is a continuing frustration	Ⓐ Ⓑ Ⓒ Ⓓ 16

*11. EXTRACT 12. TRELATE 13. DISRUPT 14. INFLUENC 15. TSTAFF 16. DISCPROB

APPENDIX B

REGRESSION ANALYSIS FOR 1983

Grade 5

Area	Step	Variable	R-Square	Regression Coefficient	Final Equation: Standardized Regression Coefficient	Intercept/ Std. Error
SELF-ESTEEM	1	SPARINT	0.27	1.932	0.292	
	2	TRELATE	0.35	0.239	0.214	
	3	HOMECLIM	0.39	0.545	0.184	29.7015/
	4	PAROCC	0.40	0.041	0.162	0.3967
UNDERSTANDING OTHERS	1	PCTTILI	0.32	-0.111	-0.191	
	2	SPARINT	0.39	4.454	0.232	
	3	PCTWHITE	0.44	0.129	0.307	
	4	PAREDUC	0.45	2.364	0.158	
	5	TLOCALE	0.47	-3.885	-0.113	82.4344/
	6	GRENROLL	0.48	-0.024	-0.095	0.4704
READING COMPREHENSION	1	PCTTILI	0.50	-0.034	-0.123	
	2	PCTWHITE	0.59	0.039	0.198	
	3	PAROCC	0.65	0.076	0.223	
	4	TVWATCH	0.67	-2.093	-0.182	
	5	TRELATE	0.69	0.291	0.191	21.0716/
	6	RESIDSQ	0.71	-0.055	-0.186	0.7025
WRITING SKILLS	1	PCTTILI	0.53	-0.039	-0.185	
	2	TRELATE	0.61	0.247	0.208	
	3	TVWATCH	0.65	-1.597	-0.178	
	4	PCTWHITE	0.68	0.031	0.203	
	5	HOMEREAD	0.71	0.950	0.250	20.1753/
	6	CLSIZE	0.73	-0.146	-0.111	0.7227
MATHEMATICS	1	TRELATE	0.42	0.404	0.283	
	2	PCTTILI	0.51	-0.040	-0.154	
	3	PAREDUC	0.54	1.824	0.276	19.9190/
	4	PCTWHITE	0.58	0.045	0.243	0.5725
INTEREST IN SCHOOL AND LEARNING	1	SPARINT	0.15	2.848	0.449	
	2	PCTTILI	0.25	0.037	0.195	
	3	STABLE	0.27	-2.989	-0.188	
	4	HOMECLIM	0.29	0.559	0.197	
	5	PAREDUC	0.31	-1.218	-0.246	40.2187/
	6	TVWATCH	0.33	-1.226	-0.152	0.3201
SOCIETAL RESPONSIBILITY	1	PCTWHITE	0.22	0.046	0.411	
	2	SPARINT	0.28	1.492	0.291	
	3	PCTGIRLS	0.32	0.062	0.186	
	4	PAREDUC	0.35	-1.114	-0.279	
	5	TVWATCH	0.37	-1.243	-0.190	33.7269/
	6	GRENROLL	0.38	-0.005	-0.071	0.3713

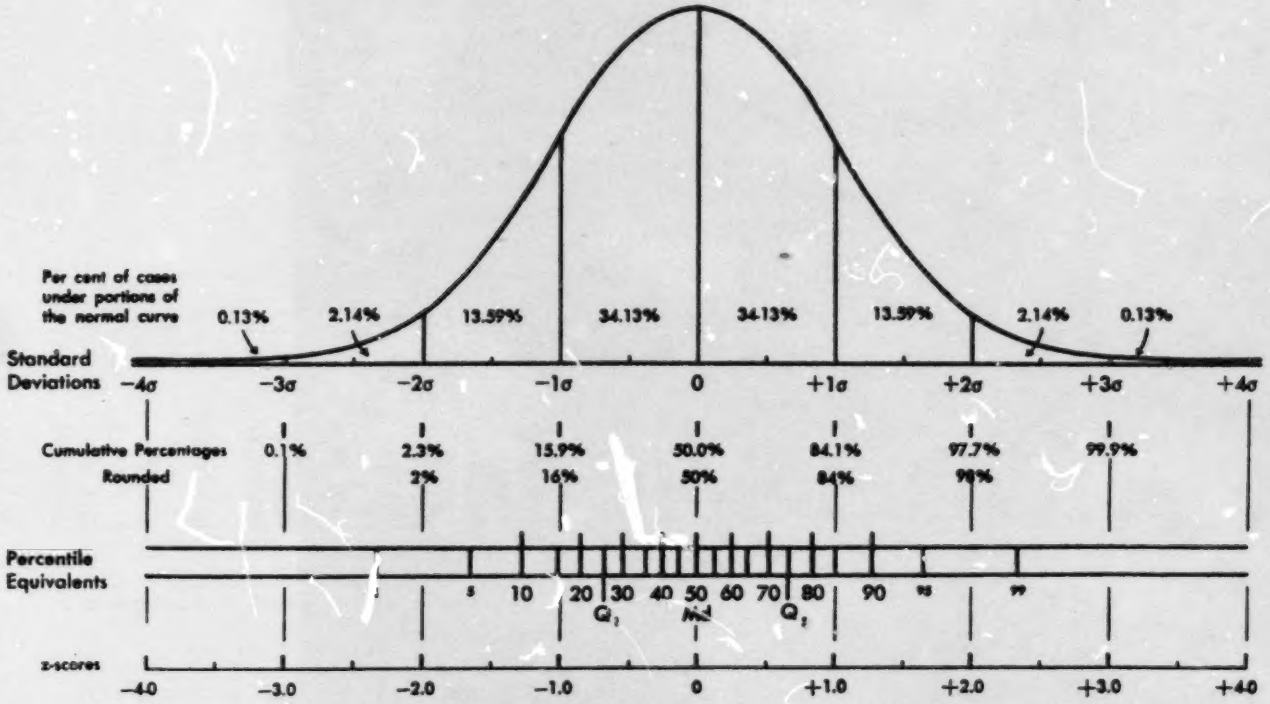
REGRESSION ANALYSIS FOR 1983 (Continued)

Grade 5

Area	Step	Variable	R-Square	Final Equation: Regression Coefficient	Final Equation: Standardized Regression Coefficient	Final Equation: Intercept/ Std. Error
KNOWLEDGE OF	1	PCTTILI	0.41	-0.014	-0.130	
LAW/GOVERNMENT	2	PCTWHITE	0.50	0.017	0.216	
	3	PAREDUC	0.55	0.595	0.212	
	4	TRELATE	0.58	0.131	0.215	
	5	STABLE	0.60	1.415	0.157	
	6	TUITION	0.61	-0.001	-0.131	2.4534/
	7	TVWATCH	0.62	-0.525	-0.115	0.6108
HEALTH	1	PCTWHITE	0.57	0.061	0.417	
KNOWLEDGE	2	PAROCC	0.71	0.052	0.206	
	3	TRELATE	0.73	0.197	0.174	
	4	HOMEREAD	0.74	0.556	0.154	12.6120/
	5	RESIDSQ	0.75	-0.031	-0.143	0.7451
CREATIVE	1	PAREDUC	0.10	1.373	0.159	
ACTIVITIES	2	PCTWHITE	0.15	-0.073	-0.303	
	3	HOMEREAD	0.18	1.300	0.217	
	4	TLOCALE	0.20	-2.782	-0.140	41.6282/
	5	LIBRARY	0.22	1.431	0.145	0.2112
CAREER AWARENESS	1	PCTWHITE	0.50	0.052	0.408	
	2	PAROCC	0.65	0.030	0.136	
	3	TRELATE	0.68	0.171	0.172	
	4	HOMEREAD	0.69	0.602	0.189	
	5	CLSIZE	0.70	-0.115	-0.104	13.6581/
	6	TVWATCH	0.71	-0.851	-0.114	0.7102
APPRECIATING	1	SPARINT	0.04	4.867	0.257	
HUMAN	2	PAROCC	0.10	-0.214	-0.300	
ACCOMPLISHMENTS	3	HOMECLIM	0.13	1.360	0.161	85.8937/
	4	HOMEWORK	0.14	3.971	0.109	0.1308
KNOWLEDGE OF	1	HOMEREAD	0.44	0.944	0.247	
HUMAN	2	TRELATE	0.53	0.247	0.207	
ACCOMPLISHMENTS	3	TVWATCH	0.57	-1.265	-0.141	
	4	PCTWHITE	0.60	0.034	0.218	
	5	PAREDUC	0.61	1.212	0.220	4.3021/
	6	HOMEWORK	0.62	-1.093	-0.080	0.6161
INFORMATION	1	PCTTILI	0.47	-0.030	-0.173	
USAGE	2	TVWATCH	0.54	-1.564	-0.215	
	3	PCTWHITE	0.59	0.028	0.225	
	4	HOMEREAD	0.63	0.612	0.198	
	5	TRELATE	0.64	0.159	0.165	14.1901/
	6	CLSIZE	0.65	-0.121	-0.112	0.6505

APPENDIX C

NORMAL CURVE WITH Z-SCORES AND PERCENTILE EQUIVALENTS



APPENDIX D

COMPARISONS OF EQA RESULTS ACROSS YEARS

Many districts have participated in EQA two or more times since 1978 and may want to compare results from those reports. Several precautions should be taken when such comparisons are made and the following points should be considered:

1. Comparison Cautions

   a. Make comparisons only with data from 1978 through the present. Pre-1978 instruments differed in varying ways from the present instruments; therefore, the results are not readily comparable.

   b. It is not recommended that comparisons be made if the school conditions have very obviously changed — for example, student socio-economic level or school grade enrollment. Many changes like these can be reflected in the condition variable data (scores and percentiles) on pages 4 to 7 of the school report. Comparing these data across the years in question can provide insight into changes in student population, staffing patterns and teacher perceptions.

   c. When comparing percentiles across two or more years, be advised that differences of up to ±20 percentile points often represent only slight changes (in school mean scores) if the school score is between the 30th and 70th percentiles. (Changes of from 1 to 15 percentile points in this range may also be attributable to error of measurement and/or to slight fluctations in percentile norms from year to year.) However, differences of 15 or 20 percentile points might represent important changes if the school is between the 1st and 30th or the 70th and 99th percentiles (the extremes of the range).

   d. If a change in percentile points is deemed to be important under the guidelines in the previous paragraph, it could be desirable to determine why the change may have happened. For example, it might have been a result of the implementation of an intervention strategy, but it also may be due to one of the points in Part 2 below, Stability of Test Scores.

2. Stability of Test Scores*

   Score changes across years may be due to

   a. True differences in classes of students in terms of ability levels and attitudes that influence achievement.

   b. Differences in composition of the class due to

      . Building openings or closings with resultant redistribution of students

*These considerations are not unique to EQA but can also apply to differences observed in standardized test scores from year to year.

- Changes in attendance areas busing patterns with resultant redistribution of students

- Change in building structure, such as K-5 changed to K-6 or a 7-9 building shifted to 6-8

- Population shifts such as PCTTILI/occupation/education level of families moving in/out of the attendance area

- Inclusion/exclusion of special education or vo-tech students from one assessment to another

- Large changes in the percentage of girls in small enrollment schools.

c. Differences in test administration conditions or procedures from one assessment to another, such as

   - Large group administration vs. individual classroom administration

   - Directions given over PA system vs. by teachers when administered in individual classrooms

   - Presence/absence of monitors, principal, superintendent

   - Time of day

   - Local events which might influence testing climate; for example, pep rallies, strikes, sudden rise in local unemployment

d. Number of students in the grade assessed (greater stability occurs with a larger number of students)

e. Differences in instructional program such as

   - Change in instructional program

   - Changes in teaching staff from year to year or even within a year resulting in a change in instructional emphasis and grading practices

f. Differences in school climate due to

   - Changes in teaching staff which can alter the communication style and expectation level to which students are exposed with a resultant effect on achievement and attitudes

   - Change in building principal; this frequently results in a different school climate which in turn influences teacher interaction patterns with students

PENNSYLVANIA'S ORIGINAL TEN GOALS OF QUALITY EDUCATION

(Adopted by the State Board of Education in 1965)

Quality education should:

I. Help every child acquire the greatest possible understanding of himself or herself and appreciation of his or her worthiness as a member of society.

II. Help every child acquire understanding and appreciation of persons belonging to other social, cultural and ethnic groups.

III. Help every child acquire, to the fullest possible extent, mastery of the basic skills in the use of words and numbers.

IV. Help every child acquire a positive attitude toward the learning process.

V. Help every child acquire the habits and attitudes associated with responsible citizenship.

VI. Help every child acquire good health habits and an understanding of the conditions necessary for maintaining of physical and emotional well being.

VII. Give every child opportunity and encouragement to be creative in one or more fields of endeavor.

VIII. Help every child understand the opportunities open to him or her to prepare for a productive life and help each child take advantage of these opportunities.

IX. Help every child to understand and appreciate as much as possible of human achievement in the natural sciences, the social sciences and the humanities and the arts.

X. Help every child to prepare for a world of rapid change and unforeseeable demand in which continuing education throughout adult life should be a normal expectation.

PREAMBLE

The constitution of the Commonwealth of Pennsylvania states, "The General Assembly shall provide for the maintenance and support of a thorough and efficient system of public education to serve the needs of the Commonwealth." This provision mandates a quality education for each child in the Commonwealth.

The schools have the primary responsibility for the achievement of the goals of quality education as established by the State Board of Education, but they must work in close and continuous cooperation with the family, community and other appropriate social, religious and governmental institutions to insure the highest possible achievement of the goals.

To foster achievement of a quality education, the school environment should be safe, attractive and orderly, promote a willingness to work for objectives, stimulate a readiness to continue learning throughout life, and encourage the fullest possible educational development of each student.

To foster achievement of a quality education, the school program should reflect the following goals.

GOALS OF QUALITY EDUCATION

(Adopted by the State Board of Education on March 8, 1979)

COMMUNICATION SKILLS
Quality education should help every student acquire communication skills of understanding, speaking, reading and writing.

MATHEMATICS
Quality education should help every student acquire skills in mathematics.

SELF-ESTEEM
Quality education should help every student develop self-understanding and a feeling of self-worth.

ANALYTICAL THINKING
Quality education should help every student develop analytical thinking skills.

UNDERSTANDING OTHERS
Quality education should help every student acquire knowledge of different cultures and an appreciation of the worth of all people.

CITIZENSHIP
Quality education should help every student learn the history of the nation, understand its systems of government and economics and acquire the values and attitudes necessary for responsible citizenship.

ARTS AND THE HUMANITIES
Quality education should help every student acquire knowledge, appreciation and skills in the arts and the humanities.

SCIENCE AND TECHNOLOGY
Quality education should help every student acquire knowledge, understanding and appreciation of science and technology.

WORK
Quality education should help every student acquire the knowledge, skills and attitudes necessary to become a self-supporting member of society.

FAMILY LIVING
Quality education should help every student acquire the knowledge, skills and attitudes necessary for successful personal and family living.

HEALTH
Quality education should help every student acquire knowledge and develop practices necessary to maintain physical and emotional well-being.

ENVIRONMENT
Quality education should help every student acquire the knowledge and attitudes necessary to maintain the quality of life in a balanced environment.

EQA SUPPLEMENTARY MATERIALS

The following supplementary materials are available in limited quantities to school districts participating in the EQA program. Requests should be mailed to: *Division of Educational Quality Assessment, Pennsylvania Department of Education, 333 Market Street, P.O. Box 911, Harrisburg PA 17108.*

1. **Getting inside the EQA Inventory**

   This 72-page technical manual explains the measurement rationale for each of the 14 scales in the questionnaire and describes the measurement safeguards operating in the program, including the design of the assessment package, an explanation of matrix sampling procedures, reliability and validity measures.

2. **How to Write an EQA Release**

   This 44-page manual provides helpful suggestions for local school district personnel assigned publicity and/or public relations responsibilities. Included are sample press releases, charts, graphs and other materials for disseminating EQA information and data.

3. **EQA. . . Presenting the Results**

   An excellent guide for school districts to explain their EQA data, this 12-page document contains helpful suggestions, ideas and visual aids.

4. **Item Analysis Processes**

   Charts and instructions for analyzing item data for each of the 15 areas (cognitive and non-cognitive) measured by EQA are available. The areas are enumerated on page 4 of this Interpreter's Manual.

5. **Resources for Improvement Packets**

   This is a series of 12 individual packets, each relating to a specific area–Self-Esteem, Understanding Others, Reading, Writing Skills, Mathematics, Interest in School, Citizenship, Health, Science and Technology, Arts and the Humanities, Work, and Analytical Thinking–which guide the reader to a variety of information sources, materials, consultants and adoptable programs which may effect improvement in a given area.

6. **A Model to Review the EQA School Report**

   A 10-page paper, this model provides one process for reviewing and analyzing an EQA school building report. It is particularly helpful for those persons involved with curriculum improvement.

7. **EQA 12 Goal Priority Probe**

   This 10-page survey instrument provides a systematic procedure for determining the philosophical priority ranking of the 12 Goals of Quality Education from various publics.

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Note: Due to budgetary limitations, requests for single copies only for any of the above publications will be honored; however, permission is granted to reproduce them, in whole or part, to meet local school district requirements.